

## SYSTEMIC LUPUS ERYTHEMATOSUS

### **S1 Disease Activity and Damage Correlates with the Quality of Life of 145 Filipino Patients with SLE Seen at a Tertiary Government Hospital**

**Japit O. Galagaran Jr, MD and Evelyn O. Salido, MD**  
*Rheumatology Section, Department of Medicine UP-PGH, 2008*

**OBJECTIVE:** To determine the correlation between quality of life, disease activity, damage index and patient demographics and disease characteristics among Filipino patients with systemic lupus erythematosus (SLE) seen at a government tertiary health facility.

**MATERIAL AND METHODS:** All patients  $\geq 18$  years of age, satisfying the 1997 Revised American College of Rheumatology (ACR) Classification Criteria for SLE, seen from June to November 2007 at the Rheumatology Out-Patient Clinic of the University of the Philippines-Philippine General Hospital were included in this prospective study.

Patients' characteristics were obtained using a standardized form. Disease activity and damage were measured using the Mexican SLE Disease Activity Index (MexSLEDAI) and the Systemic Lupus International Collaborating Clinics Damage Index (SLICC-DI), respectively. Medical Outcomes Survey Short Form 36 (MOS SF 36, Filipino version) was used to measure quality of life.

Data were analyzed using Stata version 9.2. Multivariate analysis was done to determine the correlation between disease activity, damage index, demographic and disease characteristics with the SF-36 domains.

**RESULTS:** The study population consisted of 145 patients predominantly female (96.5%) with an age of  $32.78 \pm 9.28$  years. The age at onset of SLE was  $27.55 \pm 8.37$  years with disease duration of  $5.12 \pm 4.19$  years. Fifty-five percent had lupus nephritis, 10% had APS and 7% had overlap with rheumatoid arthritis and scleroderma. All patients were on steroids with 45% on second-line agents.

Using the MexSLEDAI, 20% had clearly active disease, 28% had probably active disease and 52% had inactive disease. Thirty percent had a SLICC/ ACR DI score of  $\geq 1$  with musculoskeletal, cutaneous and ocular organs being more frequently affected.

All SF-36 domain scores were lower than the age-predicted norm. There was negative correlation between the physical function and general health domains with the MexSLEDAI ( $p 0.02$ ); and between the damage index ( $p 0.02$ ) and steroid dose ( $p 0.02$ ) with the SF-36 domains. Patients with organ damage scored lower on the SF 36 physical function domain ( $p 0.00$ ). Vitality and energy domain scores were higher among patients receiving low dose steroids ( $0.04$ ). Other demographic and disease characteristics did not show correlation with the SF-36.

**CONCLUSION:** There is a negative correlation between MexSLEDAI and SLICC/ACR DI with the SF-36 domains. No correlation was found between quality of life and other disease and demographic variables.

### **S2 Correlation Between Disease Activity and Quality of Life in 92 Patients with Systemic Lupus Erythematosus seen at the Philippine General Hospital**

**Susie D. Averia, MD, Ester G. Penserga, MD**  
*Rheumatology Section, Department of Medicine UP-PGH, 2008*

**OBJECTIVES:** To determine the relationship between disease activity and quality of life of SLE patients consulting at the out-patient department of the Philippine General Hospital.

**PATIENTS/METHODS:** This is a cross-sectional study of patients with SLE fulfilling ACR criteria for classification, seen from June to August 2007. Disease activity was measured using the MEX-SLEDAI. Self-administered Short Form 36 questionnaire was used to assess quality of life. Multivariate analysis of variance using STATA 9.2 version was used to correlate QOL (PF-GH) with disease activity.

**RESULTS:** Ninety-two patients, predominantly female with mean age of 33.32 years and mean disease duration of 5.84 years were included. Mean MEX-SLEDAI score was 3.01. Disease activity correlated with significantly lower QOL scores in the Physical Components and Mental components. In the Physical component, physical function and bodily pain subscales showed statistical difference between those with

“inactive disease” vs. those with “probably active” disease (p-value 0.001 and 0.020, respectively), and in the general health subscale, disease activity was correlated with “probably active” and “clearly active” disease (p-value 0.003 and 0.039, respectively). Likewise, the Mental component -social function subscale, showed statistically significant difference between “inactive vs. probably active” disease (p-value 0.040) and between “inactive and clearly active” disease, (p value: 0.039). No correlation was noted with disease activity and Role-physical, Role emotion, Mental health and Vitality subscales.

**CONCLUSION:** This study shows that QOL of the population of lupus patients included are affected by disease activity. MEX-SLEDAI scores in this study were above 3 indicating active disease. These scores correlated inversely with the scores in the Physical component of SF-36 namely: physical function, bodily pain and general health and Mental component: social function subscale. There was no correlation with other QOL subscales like Role physical and the 3 domains of the mental component (Mental health, Role emotion and Vitality).

### **S3 Tuberculosis Treatment on Steroid Requirement in a Cohort of Filipino Patients with Systemic Lupus Erythematosus**

**Sandra V. Navarra, MD, Laniyati Hamijoyo, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO379) : 227.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**BACKGROUND.** Systemic lupus erythematosus (SLE) patients are highly susceptible to infections including tuberculosis (TB). It is however unclear if and how TB may alter the course of SLE disease.

**PURPOSE.** This paper indirectly analyzes the reciprocal role of TB infection in SLE, by investigating the effect of adequate TB treatment on corticosteroid requirement and basic laboratory indices in a cohort of Filipino patients.

**METHODS.** Retrospective review of medical records of Filipino SLE patients seen and followed at the Rheumatology Clinics of the University of Santo Tomas Hospital from 2001 to 2006, who had completed a minimum 6-month therapy for TB. The following variables were recorded before, during, and upon completion of anti-TB therapy: (1) average prednisone or prednisone-equivalent in mg/day; (2) hemoglobin, leucocyte count and erythrocyte sedimentation rate (ESR); (3) urinary protein, red cells, leucocytes and casts. Student t-test was used to determine statistical significance.

**RESULTS.** A total of 43 episodes of TB infection in 40 SLE patients (39 females) were included in the analyses. The average age was  $29.75 \pm 11.97$  (range 7-66) at SLE diagnosis,  $35.03 \pm 12.97$  (range 14-70) at TB infection, with SLE disease duration of 61.6 months  $\pm$  61.2 (range 1 to 281) to TB diagnosis. Sites of TB involvement included pulmonary in 22 (51.1%) 5 of whom had miliary lesions, disseminated TB in 7 (16.3%), arthritis in 6 (14%), genito-urinary in 4 (9.3%), soft tissue abscess in 2 (4.6%), and 1 (2.3%) each with central nervous system (CNS) and intestinal involvement. The average daily prednisone dose (mg/day) significantly decreased from  $18.66 \pm 18.17$  SD before therapy to  $13.89 \pm 11.59$  SD during (p=0.017), and  $9.5 \pm 10.6$  SD after TB therapy (p<0.001). Hemoglobin significantly improved from  $109.05 \pm 15.49$  SD before, to  $116.65 \pm 12.24$  SD at completion of anti-TB (p=0.002). There were no significant changes in the leucocyte counts, ESR and urine protein and sediments before and after TB therapy.

**CONCLUSION.** This study suggests that TB infection may confound and aggravate SLE manifestations. Early recognition and appropriate therapy for TB can significantly impact on SLE disease activity, by reducing steroid requirements and improving hemoglobin levels.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of Rheumatology Educational Trust Foundation, Inc.

### **S4 Risk Factors for Avascular Necrosis Among Patients with Systemic Lupus Erythematosus**

**Laniyati Hamijoyo,MD, Lyndon Q Llamado,MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

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**AIM:** To describe the clinical features and risk factors for avascular necrosis (AVN) in patients with systemic lupus erythematosus (SLE).

**METHODS:** We reviewed the medical records of SLE patients with a diagnosis of AVN, seen at the University of Santo Tomas (Manila, Philippines) Section of Rheumatology, from 1995 to 2005. The diagnosis of AVN was based on clinical symptoms and confirmed by plain radiographs or magnetic resonance imaging. Possible risk factors for the development of AVN were identified. The clinical data of SLE patients without AVN were also obtained and served as controls.

**RESULTS:** Of the 540 patient charts reviewed, 43 (8.0%) patients (41 females, 2 males) with AVN were included. Out of a total of 66 joints involved, the hip was the most frequently involved. We included 93 SLE patients without AVN who were matched for age, sex and disease duration as the control group. Mean daily prednisone dose ( $11.9 \pm 7.2$  vs  $9.3 \pm 6.6$  mg,  $p=0.023$ ), mean cumulative prednisone-equivalent dose in first month of SLE diagnosis ( $1.5 \pm 0.8$  vs  $1.3 \pm 0.8$  g,  $p=0.011$ ), and total cumulative prednisone-equivalent dose ( $30.0 \pm 2.7$  vs  $20.3 \pm 1.9$  g,  $p=0.023$ ) were higher in the AVN group than in the controls. Multivariate analysis using binary logistic regression showed clinical variables significantly associated with AVN include the presence of vasculitis (OR=4.45, 95%CI 1.65-12.18,  $p=0.0007$ ), the use of intravenous pulse steroids (OR=2.92, 95%CI 1.21-7.08,  $p=0.008$ ), and the mean total cumulative prednisone-equivalent dose  $\geq 23.4$  g (OR=2.92, 95%CI 1.3-6.6,  $p=0.007$ ).

**CONCLUSION:** Corticosteroid use and vasculitis were consistent risk factors seen among SLE patients who developed AVN during the course of their disease.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

## **S5 Autoimmune Hepatitis as First Presentation of Systemic Lupus Erythematosus**

**Laniyati Hamijoyo, MD, Andrew Dysangco, MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**INTRODUCTION.** Systemic lupus erythematosus (SLE) presents in many ways; however, autoimmune hepatitis as a first manifestation or concomitant disease is rare. We report a patient who presented with autoimmune hepatitis (AIH) prior to a full serologic diagnosis of SLE.

**CASE REPORT.** A 24 year old female presented with a 2 month history of waxing and waning jaundice, with no other clinical manifestations. Her sister and mother were diagnosed with SLE. Hemoglobin was 72 g/dl, white cell count  $9.2 \times 10^9/L$ , alanine transferase (ALT) 281 U/L, aspartate transferase (AST) 355 U/L, serum bilirubin 26.4 U/L (Indirect 8.2 U/L and direct 18.2 U/L), serum creatinine 7.7 mg/dl, urine protein 0.9 g/24 hours. Serology for hepatitis A, B and C were all negative. A diagnosis of autoimmune hepatitis (AIH) was made based on the criteria of the International Autoimmune Hepatitis Group. Because of the strong family of SLE, further autoantibody tests included antinuclear antibody (ANA) which was positive up to 1:2560 (speckled pattern), and anti-dsDNA positive at 34.3 IU/ml; serum complement levels were low (0.62 g/L). The jaundice, transaminitis, and azotemia completely resolved with steroids, and urinalysis was normal on last follow-up.

**CONCLUSION.** This case illustrates a rare presenting manifestation of SLE as hepatitis. Although the strong family history prompted further work-up for SLE, it is important to consider SLE in hepatitis wherein viral etiology has been ruled out.

## **S6 Autoantibody Profile of First Degree Relatives of Filipino Patients with Systemic Lupus Erythematosus (SLE)**

**Sandra V. Navarra\*, Ishimori Mariko\*\*, Laniyati Hamijoyo\*, Michael Weisman\*\***

*\*Section of Rheumatology, Clinical Immunology & Osteoporosis, University of Santo Tomas, Manila, Philippines; \*\*Department of Rheumatology, Cedars-Sinai Medical Center, LA, USA*

**OBJECTIVE.** To determine the frequency and distribution of autoantibodies in a group of first degree relatives of SLE patients from a Filipino population.

**METHODS.** This is a cross-sectional study, included SLE patients consecutively seen at the University of Santo Tomas Hospital from 2003 to 2007, and unaffected first-degree relatives (FDRs) [parents and siblings] of these patients. All serum specimens were sent to the Rheumatology Diagnostics Laboratory, Inc (RDL) in California, USA for testing of ANA titers and the presence of antibodies to dsDNA, Ro, thyroid microsome, and cardiolipin (aCL) [IgM, IgG]. ANA was considered positive at a titer of  $\geq 1:80$ , anti-dsDNA at  $\geq 5$  IU/ml, anti-thyroid microsome  $\geq 35$  IU/ml, aCL IgM at  $\geq 12.5$  MPL and aCL IgG at  $\geq 15$  GPL. A two group corrected  $\chi^2$  test was performed to determine any significant difference in the frequency of each autoantibody between parents and siblings.

**RESULTS.** The study involved 94 SLE patients (90 females, with mean age at SLE diagnosis of 26.2 years  $\pm 11.4$  SD, range 9-58), and 210 FDRs consisting of 106 parents and 106 siblings. ANA was positive in 91 (96.8%) patients and 89 (42.0%) FDRs [56 (52.8%) parents vs. 33 (31.1%) siblings,  $p = 0.001$ ], anti-ds DNA in 73 (77.7 %) patients and 13 (6.1%) FDRs [6 (5.7%) parents vs. 7 (6.6%) siblings,  $p=0.775$ ], anti-Ro in 46 (48.9%) patients and 14 (6.6%) FDRs [5 (4.7%) parents vs. 9 (8.5%) siblings,  $p=0.269$ ], anti-thyroid microsome in 13 (13.8%) patients and 38 (17.9%) FDRs [24 (22.6%) parents vs. 14 (13.2%) siblings,  $p=0.073$ ], aCL-IgM in 8 (8.5%) patients and 4 (1.9%) FDRs [4 (3.8%) parents vs. 0% siblings,  $p=0.043$ ], aCL-IgG in 14 (14.9%) patients and 7(3.3%) FDRs [7 (6.6%) parents vs. 0% siblings,  $p=0.007$ ].

**CONCLUSION.** The frequency of ANA, anti-dsDNA and anti-Ro was 96.8%, 77.7%, and 48.9% respectively among patients, and 42.0%, 6.1% and 6.6% respectively among FDRs. Notably, FDRs had a higher frequency of anti-thyroid microsome (17.9%) vs. patients (13.8%), suggesting non-specificity and relative ubiquity of this autoantibody. ANA positivity was significantly higher among parents compared to siblings, strengthening the role of genetics in the development of SLE.

**Acknowledgment:** This study was undertaken in collaboration with Department of Rheumatology of Cedars-Sinai Medical Center, and partially supported by a research grant from the *Lupus Inspired Advocacy* (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc

### **S7 Gigantomastia in a Filipino Patient with Systemic Lupus Erythematosus Successfully Treated by Reduction Mammoplasty**

**Allan E. Lanzon MD, Sandra Navarra MD.**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**OBJECTIVE:** To describe a Filipino female with systemic lupus erythematosus (SLE) who developed steroid induced gigantomastia, which was successfully treated by reduction mammoplasty.

**SETTING:** Section of Rheumatology, Clinical Immunology and Osteoporosis, University of Santo Tomas, Manila, Philippines

**Case report:**

A 37 year old Filipino female with systemic lupus erythematosus (SLE) of 4 years duration, presented with enlargement of both breasts, especially progressive after prolonged intake of high dose steroids following a disease flare a few months ago. She opted for surgical reduction for aesthetic and psychological reasons. On physical exam, the right breast measured 58.42cm from the 2<sup>nd</sup> intercostal space (ICS) up to the nipple area, 25.4cm in width, and estimated to be about 5kg. The left measured 50.8cm from the 2<sup>nd</sup> ICS up to the nipple area, 24.13cm in width, and estimated to be about 4kg. She underwent reduction mammoplasty with free nipple graft under general anesthesia. Post-operative course was uneventful. In the following months, SLE disease remained stable and prednisone successfully tapered to 10 mg daily.

**CONCLUSION:** This case describes a rare occurrence of gigantomastia associated with steroid use in a patient with SLE, successfully treated with reduction mammoplasty.

### **S8 Survival Analysis of Systemic Lupus Erythematosus Patients Presenting With Hemolytic Anemia at the University of Santo Tomas Hospital**

**Ria Arlina C. Calata MD; Allan E. Lanzon MD; John Paul N Rosales MD; Sandra V. Navarra MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**OBJECTIVE:** To evaluate the survival rates of systemic lupus erythematosus (SLE) patients presenting with hemolytic anemia in contrast to those without hemolysis on diagnosis.

**SUBJECTS AND METHODS:** A total of 1046 patients diagnosed with SLE at the University of Santo Tomas Hospital from 1968 to 2006 were included in the database review. Kaplan-Meier plots were derived for the 108 SLE patients with hemolytic anemia on diagnosis and 938 patients without hemolysis. Logrank tests were performed to compare their survival probabilities. Cox-Mantel and Mantel-Haenszel hazard ratios were computed.

**RESULTS:** Survival at 5 and 10 years for SLE patients was 91% and 77% in those who presented with hemolytic anemia, and 93% and 89% in those without. Logrank test was significant at  $p=0.0108$ . Cox-Mantel and Mantel-Haenszel hazard ratios were 2.01 (0.98 to 4.12,  $p=0.011$ ) and 2.56 ( $p=0.0108$ ) respectively.

**CONCLUSION:** SLE patients with hemolytic anemia on diagnosis have less favorable survival outcomes than SLE patients who do not present with hemolysis.

### **S9 Salmonella Infections in Patients with Systemic Lupus Erythematosus: A Case Series**

**Jovie Gerona, Sandra V. Navarra**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**OBJECTIVE:** To describe the clinical features and course of Salmonella infections in a group of Filipinos with SLE.

**DESIGN:** Retrospective study

**SETTING:** Rheumatology Clinic of the UST Hospital (tertiary care center)

**PATIENTS/PARTICIPANTS:** Filipino SLE patients with documented Salmonella infection.

**MAIN OUTCOME MEASURES:** Underlying SLE characteristics, immunosuppressive use, sites and clinical course of Salmonella infections in a group of Filipinos with SLE.

**RESULTS:** Of the 502 SLE patients included in the UST SLE Database from 2002 to 2006, 9 (8 females, 1 male) had documented Salmonella infection. Their ages ranged from 15 to 34 years (mean 25 years), with a mean SLE disease duration of 6 years (range 5 months to 12 years) to the time of infection, 4 patients had septic arthritis (3 with knee involvement, another with hip), 3 had typhoid fever (1 with concomitant psychosis), 2 had septicemia with multi-organ involvement, 1 each had soft tissue abscess and meningitis. *Salmonella typhi* was isolated in 6 patients (1 from both blood and sputum specimens, 2 from both blood and synovial fluid, 1 from cerebrospinal fluid, 2 from synovial fluid); *Salmonella* sp was isolated from synovial fluid and blood in 1 patient each; *Salmonella enteritides* was isolated from soft tissue abscess. 2 patients had pulmonary complications, 1 of which died of acute respiratory distress syndrome (ARDS). 8 patients were on high dose steroids including 2 patients with antecedent pulse therapy and rituximab; only 1 was in remission. Management consisted of antimicrobials (ceftriaxone, sulfamethoxazole or chloramphenicol) and arthrocentesis or arthrotomy with debridement in those with septic arthritis. Except for the patient with ARDS, all other patients improved with appropriate therapy.

**CONCLUSION:** Extra-intestinal Salmonella infections are common among immunocompromised patients, including SLE. Septic arthritis was the most common presentation in our series, but other organs may also be involved. Prognosis is generally good with early recognition and prompt institution of therapy. Poor outcomes are seen among those on high-dose immunosuppressives with multi-organ involvement.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of Rheumatology Educational Trust Foundation, Inc.

### **S10 The incidence of Mycobacterium tuberculosis infection among Filipino Patients with Systemic Lupus Erythematosus**

**Galicia, Sheryll Ann MD, Amante Eric Jason MD,**

**Oral Presentation. PRA Annual Convention. Cagayan de Oro. Jan 2007**

**OBJECTIVES:** The purpose of our study is to determine the prevalence and describe the clinical characteristics of active tuberculosis in our patients with Systemic Lupus Erythematosus.. It also aim to determine some of the risk factors for tuberculosis such as the median dose and duration of steroid and use of other immunosuppressant prior to diagnosis of tuberculosis among the subject studied .

**METHOD:** This is a retrospective descriptive analysis of 180 Systemic Lupus Erythematosus patients seen at the Philippine General Hospital from January to December 2006. Patients met the American College of Rheumatology criteria for SLE diagnosis. Charts were reviewed for presence of active tuberculosis and reviewed for possible tuberculosis reactivation. Demographics of patients were also taken. The mean dose of steroid and other immunosuppressant prior to active tuberculosis were noted. SLE patients who were previously diagnosed to have tuberculosis before SLE diagnosis were followed up for possible reactivation.

**RESULTS:** Twenty six (14.4%) developed active tuberculosis . The duration from diagnosis of SLE to the diagnosis of tuberculosis range from 1.5 months to 108 months (mean, 21 months ). Most of our SLE patients with tuberculosis were female (96%) with a mean age of 35. Fifty eight percent (58%) of them have pulmonary tuberculosis whereas 42 % has extrapulmonary tuberculosis. The extrapulmonary involvement include the following: joint in 3/11 (27.27%), cutaneous in 3/11 (27.27%), meninges in 2/11 (18.18%) and 1 /11 each (9%) for genitourinary , lymph node and pericardial involvement. The individual median daily steroid dose is 25.75 mg. Eight patients (30.7%) received methylprednisolone pulsing 3 grams while two patients (7.7%) had received total of 6 grams of methylprednisolone. Other immunosuppressant received by the patients include cyclophosphamide

Three out of 180 subjects (3/180) or 1.67% of our SLE patients were diagnosed to have pulmonary tuberculosis at the time of SLE diagnosis while (4/180) or 2.22% were diagnosed to have pulmonary tuberculosis before SLE diagnosis. Three (3) patients were noted to have reactivation of PTB 2-4 years after the diagnosis of SLE.

**CONCLUSION:** The Philippines has TB prevalence of 293/100,000 ( 0.29%). This study noted that Filipino patients with SLE have a higher prevalence of TB infection than general population with prevalence of 14.4%. Increased susceptibility is due to the intrinsic immunocompromised state and use of corticosteroid therapy in our patients

**S11 The Relationship between Quality of Life, Disease Activity and Cumulative Organ Damage in Systemic Lupus Erythematosus**

**Anna Regina R. Banatin,MD, Harold Michael Gomez,MD, Sandra V. Navarra, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO311) : 198.**
3. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**PURPOSE:** To evaluate the relationship between patient-reported quality of life, physician-assessed disease activity and cumulative organ damage among systemic lupus erythematosus (SLE) patients.

**METHODS:** The self assessed quality of life was measured using Medical Outcomes Survey Short Form - 36 (MOS SF-36). This was completed by 125 SLE patients seen at the Rheumatology Clinics of the University of Santo Tomas Hospital in Manila, Philippines. A physician blinded to the MOS SF-36 results examined the patients and completed the disease activity measures and cumulative organ damage using the Systemic Lupus Activity Measure (SLAM), Systemic Lupus Erythematosus Disease Activity Index (SLEDAI) and Systemic Lupus International Collaborating Clinics / Damage Index (SLICC/ DI) respectively. Each subscale of SF-36 was correlated with SLAM, SLEDAI and SLICC/DI using the Spearman's rank correlation coefficient.

**RESULTS:** The mean age was 33±12 years old. The mean disease duration was 73±59 months. Mean MOS SF-36 scores from the different domains and both the physical and mental health dimensions was

58.92±17.13. The SLAM scores varied from 0-26 with an overall mean of 6.7 ±4.3. Likewise, the mean SLEDAI scores was 5.27± 5.43 with a range of 0-24 and the overall mean SLICC/DI scores was 0.44 ±0.84. There was inverse correlation between SF 36 and the overall SLAM scores. Body pain, general health, vitality, mental health subscales as well as the physical and mental component scores of the MOS SF36 were significantly correlated with the overall SLAM scores ( $p<0.05$ ). Constitutional lupus activity of the SLAM was correlated with physical function, role-physical, body pain, physical component scores and overall quality of life  $p<0.05$ . Body pain, general health, physical component scores and overall quality of life was correlated with integument lupus activity of the SLAM. Vitality, mental health, and the mental component scores was significantly correlated with the neuromotor lupus activity of the SLAM. Reticuloendothelial, pulmonary, cardiovascular, gastrointestinal, and the joints subscales were not correlated with SF-36 ( $p<0.05$ ). Although there was no significant correlation in the overall scores of MOS SF-36, SLEDAI and SLICC, the physical function, body pain, general health domains of MOS SF-36 was significantly correlated with the SLEDAI scores ( $<0.05$ ).

**CONCLUSION:** SLE disease activity as assessed by SLAM significantly impacts on the various domains in the quality of life of SLE patients. There was no correlation based on overall scores on the effects of disease activity by SLEDAI and organ damage by SLICC. Although physical function, body pain and general health domains of MOS SF-36 were correlated with SLEDAI.

**Research Grant Support:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

## **S12 Correlation of patient-reported disease activity using Systemic Lupus Activity Questionnaire (SLAQ) with the physician-rated Systemic Lupus Activity Measure (SLAM)**

**Anna Regina R. Banatin,MD, Harold Michael P. Gomez,MD, Sandra V. Navarra, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine, University of Santo Tomas, Manila, Philippines*

1. 2<sup>nd</sup> Place.Oral Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007
2. Lupus An International Journal May 2007; 16 (Abstract Supplement PO116) : 122.
3. Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007

**PURPOSE:** This study aims to determine whether the Systemic Lupus Activity Questionnaire (SLAQ) can be used to predict self-reported disease activity among Filipino systemic lupus erythematosus (SLE) patients.

**Methods:** The SLAQ was completed by 125 SLE patients seen at the Rheumatology Clinics of the University of Santo Tomas Hospital. A physician blinded to the SLAQ results examined the patients and completed the Systemic Lupus Activity Measure (SLAM). Correlations between SLAQ and SLAM and between individual items from each instrument were assessed with Spearman rank correlation coefficient.

**RESULTS:** The patients were predominantly female from the 25-34 age group (43%). The mean SLAM and SLAQ score was 5.45±3.17 and 23.42 ±11.47, respectively. Significant correlation between the patient and physician assessment were noted in the integument ( $p=0.0387$ ,  $\rho=0.2654$ ), cardiovascular ( $p=0.0238$ ,  $\rho=0.2891$ ) and neuromotor ( $p=0.0044$ ,  $\rho=0.3595$ ) category with neuromotor displaying the highest correlation. Inverse correlation was also noted in the reticuloendothelial ( $\rho= -0.073$ ) and gastrointestinal ( $\rho= -1.038$ ) category. The correlation however was not significant. The SLAQ symptom score displayed a significant correlation ( $\rho= 0.3245$ ) with the overall physician assessment ( $p=0.0147$ ). Overall scores for SLAQ and SLAM were significantly correlated ( $p=0.0148$ ).

**CONCLUSION:** This study suggests that patient's self reported symptoms using the SLAQ can be used with some degree of accuracy to initially screen for clinically active disease. This is expected to facilitate and supplement the physician's assessment of patients with SLE.

**Research grant support:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S13 Central Nervous System (CNS) Infections in a Cohort of Filipino Patients with Systemic Lupus Erythematosus (SLE)**

**Pauline Jea Vargas, MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO100) : 115.**
3. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**OBJECTIVE:** We describe the etiology, contributory factors and outcomes of CNS infections in a group of Filipino patients with SLE.

**DESIGN:** Retrospective case series

**SETTING:** University of Santo Tomas Hospital in Manila, Philippines (private tertiary hospital)

**PATIENTS AND PARTICIPANTS:** SLE patients diagnosed and confined for a CNS infection from 1996 to 2007

**RESULTS:** A total of 22 patients (21 females) were included in this study. The mean age at SLE diagnosis was 25.8 (range 12-51), and 30.4 (range 14-58) at CNS infection, with a mean disease duration of 62.3 months (range 7 - 192). Eighteen patients (82%) had meningitis, and four (18%) had brain abscess. The etiologic agents were identified as *Cryptococcus neoformans* in 8 (36.4%), *Mycobacterium tuberculosis* in 5 (22.7%), *Streptococcus pneumoniae* in 2 (9.0%), *Salmonella sp.* in 1 (4.6%), *Corynebacterium bovis* with *Actinomyces sp.* in 1 (4.6%), and unidentified in 5 (22.7%). The average daily prednisone dose was 30.2 mg (range 0 to 60 mg); 7 patients had recently received pulse cyclophosphamide, and 2 patients were on mycophenolate mofetil at the time of infection. Most patients had active SLE. The infection resolved completely in 8 (36%), and resolved with sequelae in 2 (9%); 12 patients (55%) died.

**CONCLUSION:** We described the etiology and outcomes of CNS infections in a group of patients with SLE. Risk factors included active SLE in majority of cases requiring moderate to high dose steroids, with other immunosuppressants like cyclophosphamide. Although *Cryptococcus neoformans* and *M. Tuberculosis* were the most common etiologic agents, it is just as important to search for less common organisms which can produce disease in highly susceptible hosts.

**Research grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc

### **S14 Contributing Factors to Disease Flare in a Cohort of Filipino Patients with Systemic Lupus Erythematosus**

**Pauline Jea Vargas, MD, Sandra V. Navarra, MD**

*Section of Rheumatology and Clinical Immunology, University of Santo Tomas, Manila, Philippines*

1. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO99) : 115.**
3. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**INTRODUCTION:** SLE is a multisystem disease with an extremely variable course characterized by periods of remission and disease activity. Environmental, psychosocial and other factors have been implicated as potential triggers to disease flare.

**PURPOSE:** To describe the contributing factors to disease flare in a cohort of Filipino patients with SLE.

**METHODS:** All patients were diagnosed with SLE, being treated at the Rheumatology Clinics of the University of Santo Tomas from January to December 2006. Disease flare was defined as an increase of 3 or more points in the total SELENA-SLEDAI score. The data of patients with SLE who presented with a disease flare were analyzed for possible contributory factors as derived from patient interview, medical records, and responses to the life experiences survey (LES).

**RESULTS:** A total of 87 patients (82 females) were included in the study, each with a single disease flare. The mean age at SLE diagnosis was 23.6 years, with mean disease duration of 62.3 months from SLE

diagnosis to the index flare; mean age at disease flare was 28.7 (range 15-58). Although most flares occurred in May and September, there was no clear seasonal pattern throughout the year. The flares were mucocutaneous in 52 (60.5%), renal in 29 (33.7%), hematologic in 15 (17.4%), neurologic in 7 (8.1%), psychiatric in 5 (5.8%), pulmonary in 3 (3.5%), cardiac with underlying anti-phospholipid syndrome in 2 (2.3%), and intestinal pseudoobstruction in 1 (1.2%). There were 56 (64.4%) mild to moderate flares and 31 (35.6%) severe flares. Contributory factors included infection in 28 (32.6%), emotional stress in 22 (25.3%), non-compliance to medications in 23 (26.7%), physical stress in 16 (18.4%), sunlight exposure in 4 (4.6%), mental stress in 10 (11.5%), 1 (1.1 %) each with fetal loss and excess smoking. Among the 41 patients able to complete the LES, 27 (65.9%) had poor stress rating, 6 (14.6%) had fair, 5 (12.2%) were good, and 3 (7.3%) excellent.

**CONCLUSION:** In this cohort of patients, disease flares were mostly mild to moderate in severity. Infection, emotional stress and non-compliance were the most common contributory factors. Most patients had poor stress ratings in the LES.

**Research grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc

### **S15 Causes of Mortality among Filipino Patients with Systemic Lupus Erythematosus**

**Allan E. Lanzon MD, Sandra Navarra MD.**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO291) : 189.**
3. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**INTRODUCTION:** Systemic lupus erythematosus (SLE) is a chronic multisystem disorder of autoimmune origin, which often results in end-organ damage and even mortality. Its natural history is characterized by a broad range of manifestations, episodes of relapses or flares interspersed with remissions, complications related to the disease or medications, and a highly variable outcome ranging from permanent remission to death.

**OBJECTIVES:** To describe the causes of death in patients with SLE seen at the University of Santo Tomas (UST) Hospital, Manila, Philippines

**METHODS:** Retrospective review of medical records of SLE patients who were confirmed to have died within the period 1996 to 2006. The causes of death were determined by a review of clinic and hospital records, and further categorized as related or unrelated to active SLE disease. The patients were divided into 3 subgroups: 1) childhood/pediatric onset – onset of disease before the age of 16 years; 2) adult-onset – onset of disease between the ages of 16 and 50 years; and 3) late-onset – disease first diagnosed after the age of 50 years. Deaths were considered early in patients who died within 5 years from time of diagnosis and late in patients who died 5 years after diagnosis.

**RESULTS:** Data were obtained from the records of 190 patients (182 females). The mean age of SLE onset was  $27.726 \pm 0.781$  years (range 5-68 years), with an average disease duration of  $743.121 \pm 36.780$  months (range 1-313 months). Majority of patients (134, 70.5%) had active SLE disease at the time of death. In addition, among the co-morbidities infection was the leading contributing factor (44%) in the cause of death, followed by renal involvement and sepsis in 42% and 31% respectively. Nineteen (10%) patients had the first onset of SLE before the age of 16 years and 7 (3.69%) had disease onset after the age of 50 years; 164 (86.31%) patients had disease onset between the ages of 16 and 50 years. Active SLE is more common in adult-onset SLE (72%), cardiovascular deaths (37%) in late-onset SLE and infection (63%) in early-onset SLE. Death as a result of active SLE was more common in patients who died within 5 years of diagnosis (75%) compared to those dying after 5 years (62%) and deaths due to vascular events (37%) and infection (56%) were more frequent in the late death group.

**CONCLUSION:** Active SLE was the main cause of death in this group of patients, especially in the early part of the disease, with infection as an important contributing factor to mortality. This reiterates the need for early recognition and aggressive control of lupus activity, as well as an active search and prompt treatment of infections among these immunocompromised patients.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S16 Maternal and Fetal Outcomes in Lupus Pregnancy among Filipino Patients at Two Tertiary Hospitals**

**Elizabeth A. Edralin,MD Allan E. Lanzon,MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH St. Luke's Medical Center, Quezon City Philippines*

1. **Young Investigator Awardee and Poster Presentation. 8th International Congress on SLE. China, May 2007.**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO324) : 204.**
3. **1<sup>st</sup> Place Oral Presentation. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007**

**BACKGROUND:** Systemic Lupus Erythematosus (SLE) occurs predominantly in women of reproductive age. Lupus pregnancies are generally associated with less favorable outcomes, both for the mother and fetus.

**OBJECTIVES:** To describe the maternal and pregnancy outcomes in a group of Filipino patients with SLE.

**METHODS:** Retrospective study of the maternal and fetal outcomes of SLE patients seen by rheumatologists at 2 tertiary rheumatology training hospitals - St. Luke's Medical Center (SLMC) and University of Santo Tomas (UST) Hospital in Manila, Philippines – from 1996 to 2006. The medical charts of SLE patients with recorded pregnancies after SLE diagnosis were reviewed.

**RESULTS:** Included were data from 45 SLE patients, with a total of 63 recorded pregnancies (parity ranged from 1 to 5). The mean age at SLE diagnosis was  $26 \pm 5.58$  years (12-36), and mean SLE duration to lupus pregnancy was  $48 \pm 32.87$  (2-168) months. Two patients had antiphospholipid syndrome. Nineteen percent of these patients had disease flare during pregnancy while one had post-partum flare. Manifestations during disease flare included alopecia in 8 (12.7%), malar rash in 8 (12.7%), proteinuria in 5 (7.9%), pyuria in 3 (4.8%), hematuria in 4 (6.3%), urinary casts in 7 (11.1%), hypocomplementemia in 3 (4.8%) and vasculitis in 2 (3.2%). Maternal outcomes included pre-eclampsia in 2 (3.2%) and severe pre-eclampsia in 1 (1.6%). Fetal outcomes were term in 40 (63.5%), pre-term in 9 (14.3%), spontaneous abortions in 8 (12.7%), intra-uterine fetal death (IUFD) in 3 (4.8%) and neonatal death in 2 (3.2%). One child was born with congenital anomalies (cleft lip and palate, rectal fistula) and another with congenital heart block. Of these patients, 62 (98.4%) were maintained on steroids even prior to pregnancy. All were on oral steroids, while 17 (27%) were on hydroxychloroquine and 18 (28.6%) on aspirin during pregnancy.

**CONCLUSION:** This series illustrates that successful pregnancies can occur among SLE patients and efforts should be exerted on achieving planned gestation and close peripartum monitoring and control of lupus activity.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation

### **S17 Bone Mineral Density in Filipino Women Diagnosed with Systemic Lupus Erythematosus**

**Lyndon JQ Llamado MD, Andrei RM Rodríguez MD, and Sandra V. Navarra MD.**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO292) : 189.**
3. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**INTRODUCTION:** Osteoporosis is a significant co-morbidity in patients with SLE. It is a systemic skeletal disease characterized by low bone mass and micro-architectural deterioration of bone tissue with a

consequent increase in bone fragility and susceptibility to fracture. There are many disease related variables associated with the development of osteoporosis in SLE. Some of these variables include female sex, the use of systemic corticosteroid, amenorrhea or even menstrual irregularity, deliberate avoidance of exposure to sunlight, and reduced physical activity. The availability of dual energy x-ray absorptiometry (DXA) constitutes a significant advancement in the non-invasive assessment of patients with osteoporosis.

**OBJECTIVE:** To determine the bone mineral density and its clinical determinants in a cohort of Filipino female patients with systemic lupus erythematosus (SLE).

#### **METHODS**

**Subjects:** SLE patients diagnosed based on the American College of Rheumatology (ACR) criteria seen at University of Santo Tomas Hospital, Section of Rheumatology, Clinical Immunology & Osteoporosis who underwent bone mineral density (BMD) measurements.

**DXA measurement:** Lumbar spine (LS), femoral neck (FN) and ultradistal forearm (UDFA) BMDs were measured using Lunar DPX-IQ.

**Variables:** The variables evaluated were age at the time of BMD testing, age of diagnosis of SLE, duration of SLE, age of menarche, height, weight, body mass index (BMI), years since menopause and cumulative prednisone dose.

**Statistical analysis:** Clinical determinants of bone mineral density were studied using linear regression.

**RESULTS:** In total, 84 SLE patients were evaluated. The mean age at SLE diagnosis was  $36.6 \pm 18.8$  years with mean disease duration of  $9.87 \pm 8.7$  years. The mean age at the time of BMD measurement was  $42.9 \pm 15.5$  years. The mean age of menarche was  $12.9 \pm 1.6$  years. For those who are already menopausal, the mean duration of amenorrhea at the time of BMD measurement was  $11.7 \pm 10.3$  years. Measurement of the lumbar spine showed a mean BMD of  $0.986 \pm 0.19$ , femoral neck mean BMD was  $0.812 \pm 0.17$  and ultradistal forearm mean BMD was  $0.315 \pm 0.06$ . At the lumbar spine 37% of the patients were osteopenic and 15% were osteoporotic. At the non-dominant femoral neck, 31% were osteopenic and 14% were osteoporotic. In this study, the factors noted to predict BMD were years of menopause, weight and height, disease duration and cumulative prednisone dose.

**CONCLUSION:** There is a need to enhance awareness of risk factors for low bone mass and increased fracture risk among patients with SLE, assess their BMD status, and reinforce early and aggressive preventive as well as treatment measures for this group of patients.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S18 Intestinal Pseudo-obstruction as an Early Presenting Manifestation of Systemic Lupus Erythematosus: a Report of 2 Cases**

**Isser N. Sugay, MD, Johnny T. Go, MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO152) : 136.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**SUMMARY:** Gastrointestinal involvement including intestinal pseudo-obstruction (IPO) has been reported as a manifestation of systemic lupus erythematosus (SLE). However, being infrequent and minimally specific for SLE, it is not included in the diagnostic criteria for classification of SLE. We report IPO as a predominant early manifestation in 2 Filipino lupus patients. An active search for other lupus manifestations and identification of SLE as the underlying pathologic process facilitated appropriate steroid therapy, which dramatically reversed the intestinal obstruction and averted unnecessary surgery.

#### **CASE No.1**

A 45-year old Filipino woman was admitted because of repeated bouts of severe and diffuse cramping abdominal pain with nausea and vomiting for more than a month. Later, she developed periorbital edema and skin rashes. Laboratory tests showed anemia with leukocytosis, hematuria, pyuria, and albuminuria; sodium and potassium were 139 and 3.6 mEq/L, respectively. Test for antinuclear antibody (ANA) by latex fixation was positive at 1:4 dilution and the serum complement decreased to 0.34. A few hours after admission, the whole abdomen became distended, tympanic, and tense. Abdominal flat and upright films

demonstrated distended bowel loops (See Figure 1). She rapidly went into shock, was transferred to intensive care, and placed on vasopressors and IV antibiotics. A nasogastric drainage yielded 300ml of gastric secretion. She was intubated and hooked to a mechanical ventilator. Abdominal CT scan confirmed the presence of distended bowel loops but did not show any sign of intraperitoneal abscess. Hydrocortisone 200mg was given parenterally, followed by 100mg at 6-hour intervals thereafter. Four hours after the initial hydrocortisone dose, she improved remarkably with steady rise in blood pressure, gradual reduction of her abdominal girth, and marked decrement of nasogastric drainage. Anti-dsDNA and anti-Sm determinations yielded positive results. Subsequently, her bowel sounds became active and she passed out mushy stools. She was discharged improved.

#### **CASE No. 2**

A 34-year-old housewife was confined because of recurrent cramping epigastric pain. Three months earlier, she complained of intermittent fever, body malaise, and arthritis. Laboratory tests showed hypochromic anemia, 2+ albuminuria, and pyuria. She was given anti-spasmodics, prednisone 5 mg/d and meloxicam, but these did not improve her symptoms. She also continued to be bothered by the gnawing to cramping epigastric pain. On admission, BP was 110/70, pulse rate 114 bpm, respirations 20 cpm and temperature, 37.7C. Other physical exam including the abdomen were unremarkable. Hemoglobin and leucocytes were normal, but erythrocyte sedimentation rate was 80, and there was 2+ albuminuria, hematuria, and pyuria. ANA was positive and C3 level was low at 0.46. Blood cultures were negative. Prednisone was started 30 mg/day, and empirical antibiotic. During confinement, her abdominal discomfort worsened, associated with nausea and vomiting. This rapidly progressed to abdominal distention and tympany. There was abundant nasogastric drainage, suggestive of intestinal obstruction. Leucocyte count increased to 24,000/cu.mm with shift to the left. Plain x-ray of the abdomen revealed diffuse dilation of the large bowels ( Figure 2). Prednisone was shifted to IV hydrocortisone, with immediate improvement and resolution of the abdominal distention, and return of normoactive bowel sounds. She was discharged significantly improved a few days later on prednisone 30 mg/d.

**DISCUSSION :** Systemic lupus erythematosus (SLE) is a multisystemic disease that can affect all the systems of the body. Involvement of the digestive system is fairly common in SLE, but it often attracts less attention when compared to renal, hematological, and neuropsychiatric complications of the disease. Actual incidence of abdominal pain in patients with SLE is unclear. It varies from 8 to 37% of cases, with the lowest figure being reported in a series that excluded medication-related symptoms.

Intestinal pseudo-obstruction (IPO) is a clinical syndrome characterized by impaired intestinal motility as a result of dysfunction of the visceral smooth muscle or the enteric nervous system. It may involve the small or the large bowel, and presents in acute, subacute or chronic forms. The most common clinical manifestation of IPO is diffuse distention of the abdomen, occasionally with obstipation, nausea and vomiting. The pathogenesis is unclear, and it has been observed in patients with SLE associated with the use of certain medications, gut ischemia, hypoxia or inflammation systematically or locally in the peritoneum, gut, urinary tract or thorax. Local stimuli induce an inhibitory reflex that results in ileus, for which the splanchnic nerves provide both the afferent and efferent pathways.

SLE-related IPO usually responds to treatment with high dose corticosteroids. Additional immunosuppression in the form of azathioprine, cyclosporine A and cyclophosphamide were used by some reports. Despite maintenance therapy, some patients have relapsing course in the absence of other major organ involvement. Early recognition of IPO in SLE patients is important because the condition is potentially reversible with non-surgical measures and early institution of immunosuppressive therapy. This will avoid unnecessary laparotomies for sub-acute intestinal obstruction. The IPO of our patients resolved within four hours after the initiation of high-dose corticosteroid therapy, without concomitant use of a prokinetic agent nor the need to perform surgical colonic decompression or percutaneous cecostomy. The clinical reversal of severe ileus would indicate that the etiopathogenetic factor of IPO in these two cases is steroid-sensitive.

**CONCLUSION:** We have illustrated 2 cases of IPO as a predominant manifestation SLE. Identification of gastrointestinal vasculitis as the underlying pathologic process facilitated appropriate steroid therapy, which dramatically reversed the bowel obstruction and averted unnecessary surgery.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

## **S19 Clinical Profile of Filipino Systemic Lupus Erythematosus Patients with Family History of Autoimmune Diseases**

**Rosario P. Baes, MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. Oral Presentation . 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007
2. Lupus An International Journal May 2007; 16 (Abstract Supplement PO156) : 137.
3. Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007
4. Oral Presentation. The 51st Annual General Assembly and Scientific Meeting of the Japan College of Rheumatology and The 16th International Rheumatology Symposium, April 2007
5. APLAR Journal of Rheumatology 2006; 9(suppl.1) A266

**INTRODUCTION:** Systemic lupus erythematosus (SLE) tends to run in families, with numerous studies linking the role of genetic factors in its etiopathogenesis. It is estimated that 5 to 12 % of relatives will develop SLE, or other autoimmune diseases. Familial aggregations were observed especially among monozygotic twins.

**OBJECTIVE:** To describe the clinical manifestations of Filipino systemic lupus erythematosus (SLE) patients with a family history of SLE and/or other autoimmune disease (AID).

**METHODS:** Review of medical records of patients in the Lupus Database of Rheumatology and Clinical Immunology Section at University of Santo Tomas Hospital in Manila, Philippines. An active search was made for data indicating a family history of SLE or other AID; these patients comprised the “familial” group. The control or “non-familial” group comprised of SLE patients from the same Database, *without* a family history of SLE or other AID, matched for gender and age at SLE diagnosis. The demographic and clinical profile of both groups were compared. Statistical analyses used Chi square tests to determine differences in the clinical manifestations of “familial” and “nonfamilial” SLE groups.

**RESULTS:** Among 1008 patients in the Lupus Database, 84 (80 females) had a family history of SLE or other AID. Average age onset of index patients was  $29.4 \pm 12$  SD years (range 21-72). Forty eight (57%) patients had first degree relatives with SLE, 23 (27%) with second degree relatives with SLE, and 13 (16%) patients had a family history of other AID including rheumatoid arthritis (RA), psoriasis, mixed connective tissue disease (MCTD), autoimmune hemolytic anemia and scleroderma. The first-degree relationships with SLE included siblings in 37 patients and parent-child relations in 11 patients. The most common *presenting* features were renal involvement, malar rash and arthritis. Anti-nuclear antibodies (ANA) – predominantly speckled - were present in all patients, with predominance of RNP antibodies. Renal and neuro-psychiatric involvement were recorded in 11% and 25%, respectively. Seven patients had died at the time of this report with an average disease duration of  $80 \pm 52$  months; causes of death were active SLE in 5 (renal failure in 3), sepsis and stroke in 1 patient each. There were no significant differences in the overall clinical manifestations (observed throughout the disease course) between “familial” vs. “non-familial” SLE group.

**CONCLUSION:** Family history of SLE or AID was recorded in about 7% of patients in our lupus database. There was no clear difference in their clinical manifestations compared to those without a family history. In addition to genetics, we need to identify other factors which contribute to the expression of the disease.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

## **S20 Socioeconomic Profile and Health Care Costs of Filipino Patients with Systemic Lupus Erythematosus**

**Jacqueline O. King, MD, Fortunato S. Cortez, Jr., MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. Phil J Int Med 2007
2. Oral Presentation. 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007
3. Lupus An International Journal May 2007; 16 (Abstract Supplement PO079) : 107.

#### 4. Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007

**BACKGROUND:** Systemic lupus erythematosus (SLE) is a complicated, disabling and multi-systemic autoimmune disease affecting mainly females of the reproductive age. The economic impact can be considerable due to health-care costs and loss of household and workforce productivity.

**PURPOSE:** To describe the socioeconomic profile and estimated costs of health care delivery among Filipino patients with systemic lupus erythematosus (SLE).

**METHODS:** The study design was a cross-sectional survey using an investigator-assisted questionnaire, jointly completed by both patients and caregivers.

All patients fulfilled the 1997 updated American College of Rheumatology (ACR) criteria for SLE.

This was conducted among patients seen at the Rheumatology Clinics (private and charity), or attending lupus support group meetings of the University of Santo Tomas (UST) Hospital, a tertiary care hospital, in Manila, Philippines, from May to October 2006.

**RESULTS:** A total of 205 SLE patients (194 or 94.63% females) participated in the survey. The average age was  $32.15 \pm 12$  (range 9-70 years), with an average SLE disease duration of  $5.56 \text{ years} \pm 5.26$  (range 0.08 to 35.5 years). Among the 177 patients aged  $\geq 21$  years, 99 patients (55.93%) completed tertiary education, while 33 patients (18.64%) were unemployed.

Majority of patients (126, 61.46%) reported an annual combined household income ranging from low to middle-income (PhP <30,000 to PhP 140,000)\* [US\$625 to \$2,916], with 38 (18.54%) patients allotting more than 50% of their budget for medical expenses. Excluding those who underwent intravenous pulse therapy and/or hospitalization, the total amount of monthly medical expenses ranged from PhP 45 to 104,000 (average PhP  $7,238 \pm 11,491$  SD) [US\$150  $\pm$  239], most of which were spent on medications. IV pulse therapy contributed an additional average amount of PhP  $10,162 \pm 14,474$  SD [US\$211  $\pm$  301] while hospitalization added PhP  $30,038 \pm 34,852$  SD [US\$625  $\pm$  726] to the total monthly medical expenses. Pulse therapy combined with hospitalization cost an additional PhP  $52,864 \pm 41,230$  SD [US\$1,101  $\pm$  858] per month. Ninety-five patients (46.34%) did not consider lack of funds as a factor for non-compliance, although 86 patients (41.95%) claimed that lack of funds "sometimes" became a hindrance to compliance.

\*PhP 48.00 = US\$1.00

**CONCLUSION:** This survey highlights the socio-economic burden of SLE among Filipino patients, and underscores the potential impact of the disease not only on the patient, but also on the family and community.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

#### S21 Avascular Necrosis Among Filipino Patients with Systemic Lupus Erythematosus

Laniyati Hamijoyo, MD, Lyndon J.Q. Llamado, MD, Sandra V. Navarra, MD

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. Poster Presentation. 12<sup>th</sup> APLAR Congress. Kuala Lumpur, Malaysia, August 2006
2. APLAR Journal of Rheumatology 2006; 9(suppl.1) A260
3. Poster presentation. 14<sup>th</sup> Annual PRA meeting, Cagayan de Oro, January 2007

**OBJECTIVE:** To describe the clinical features of avascular necrosis (AVN) in a cohort of Filipino patients with systemic lupus erythematosus (SLE).

**METHODS:** We reviewed the medical records of SLE patients with a diagnosis of AVN seen at the University of Santo Tomas (Manila, Philippines) Section of Rheumatology, Clinical Immunology and Osteoporosis, from 1995 to 2005. The diagnosis of AVN was based on clinical symptoms and confirmed by plain radiographs or magnetic resonance imaging (MRI). The clinical feature were collected and reviewed.

**RESULTS:** Of the 540 patient charts reviewed, 43 (8.0%) patients (41 females, 2 males) with AVN were included. The mean age at diagnosis of AVN was  $31.9 \pm 10.2$  (range 15-54) years, with median disease duration of 42 months (range 5-288) from the diagnosis of SLE to AVN diagnosis. From the total joint involvement of 66, the hip was the most often involved. The mean daily prednisone/equivalent dose at the

time of AVN diagnosis was  $11.3 \pm 7.1$  mg (range 0.5-30.1) with a median cumulative dose of 12.75 g (range 0.64-73.85). Total patients used cytotoxic therapy were 16 (37.2%) patients, There were 13 patients (30.2%) with cutaneous vasculitis, 8 (18.6%) with Raynaud's phenomenon, and 4 patients (9.3%) with antiphospholipid syndrome. Four (9.3%) patients had septic arthritis in the same joint preceding AVN diagnosis.

**CONCLUSION:** This study described the clinical features among Filipino SLE patients who developed AVN during the course of their disease.

## **S22 Correlation of Depression to Quality of Life among Filipino Patients with Systemic Lupus Erythematosus**

**Laniyati Hamijoyo, MD, Harold Michael P. Gomez, MD, Julie Li-Yu, MD, Sandra V. Navarra, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO188) : 150.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
3. **Poster presentation. 14<sup>th</sup> Annual PRA Convention, Cagayan de Oro, January 2007**

**PURPOSE:** To determine correlation between depression using the Beck Depression Inventory (BDI) and various domains of the Medical Outcomes Short Form Study – 36 (MOS SF36) among Filipino patients with systemic lupus erythematosus. (SLE)

**METHODS:** Cross-sectional survey conducted among Filipino SLE patients seen at the Rheumatology clinics of the University of Santo Tomas Hospital in Manila, Philippines, from August to December 2005. The patients were asked to answer the questionnaire of Beck Depression Inventory – second edition (BDI-II) and the MOS SF-36. SLE disease activity index using SELENA-SLEDAI was scored by an independent assessor at the time the questionnaires were completed. Correlation of the various domain scores of SF-36 to the BDI-II was done using Spearman correlation co-efficient test.

**RESULTS:** Eighty-five SLE patients participated in this study (82 females, 96.5%), with a mean age of  $34.0 \pm$  SD 11.6 years (range 13 to 68). Disease duration averaged  $64.6 \pm$  SD 57.2 months (range 1 to 289). Depression based on BDI-II score was found minimal in 46 patients (54.1%), mild in 19 patients (22.4%), moderate in 17 patients (20.0%) and severe in 3 patients (3.5%). The correlation between BDI-II and disease activity and disease duration were not significant ( $p=0.82$  and  $p=0.70$ , respectively). Spearman correlation between BDI-II and the various domains on the SF-36 showed significant correlation except for role function physical. Physical and mental health dimensions scores of the SF-36 was significantly correlated with depression, with coefficient correlation  $\rho = - 0.480$ ,  $p<0.001$  and  $\rho = - 0.547$ ,  $p<0.001$  respectively.

**CONCLUSION:** Our study suggests that depression may have an impact not only on the mental but also on the physical dimensions associated with quality of life. Furthermore the mental health scores of MOS SF-36 form can be used to screen for depression among SLE patients, but this will have to be further confirmed by the BDI-II assessment.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

## **S23 Antiphospholipid Syndrome in a Filipino with Systemic Lupus Erythematosus and Malignancy: Case Report**

**Elizabeth A. Edralin, MD, Sandra V. Navarra, MD**  
*St. Luke's Medical Center*

1. **Young Investigator Awardee and Poster Presentation. 8th International Congress on SLE. China, May 2007.**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO012) : 82**
3. **Poster Presentation. 14th PRA Annual Convention. Cagayan de Oro, Jan 2007.**

**BACKGROUND:** Disease conditions such as the Antiphospholipid Syndrome (APS) and malignancy are characterized by a state of hypercoagulability. While it is known that Antiphospholipid Syndrome is strongly associated and may be secondary to an underlying connective tissue disease such as Systemic Lupus Erythematosus (SLE), the occurrence of a combination of APS and malignancy is less known. This report describes an unusual case of (APS) presenting as cavernous sinus thrombosis, hemolytic anemia and thrombocytopenia in a patient with Systemic Lupus Erythematosus and Undifferentiated Palatal Carcinoma.

**CASE REPORT:** We report a case of a 29 year old Filipino female who had undergone radical maxillary dissection for undifferentiated carcinoma of the hard palate, and presented a year later with Coombs positive hemolytic anemia, thrombocytopenia and nephritis. There was no evidence of cancer recurrence or metastasis. Further work-up disclosed high titers antinuclear antibody (ANA) 1:640, and anti-dsDNA 1,296 IU/ml and hypocomplementemia (C3 18.1 mg/dl); antibodies to Ro, La, Sm and RNP were negative. Anticardiolipin antibodies IgG and IgM were positive (60.13 and 14.0, respectively). A week after the diagnosis of systemic lupus erythematosus (SLE) was confirmed, she entered the hospital because of acute onset headache and unilateral orbital pain and swelling, accompanied by intermittent fever. Magnetic resonance imaging (MRI) of the brain revealed right superior ophthalmic vein dilatation with associated proptosis of the globe for which a cavernous sinus thrombosis was considered. There was no evidence of bleeding despite severe thrombocytopenia (platelet count 20,000). She received methylprednisolone pulse therapy for 3 days, which dramatically improved the orbital pain, swelling and proptosis. Hemoglobin and platelet counts steadily improved on maintenance oral steroids.

**CONCLUSION:** We have described an unusual occurrence of a secondary APS in a patient with malignancy. This case illustrated the increased risk for thrombosis among patients with SLE in the presence of antiphospholipid antibodies. Further, it is also in consideration that the underlying malignancy had increased the hypercoagulability and predisposition to thrombosis as evidenced by the absence of bleeding despite the low platelet counts. Thus, there are strong interactions and potential mechanisms that come into play between autoimmunity and oncogenesis.

## **S24 Factors Affecting Compliance to Medications among Filipino Patients with Systemic Lupus Erythematosus**

**Liza Marie C. Maceda,MD, Anna Regina R. Banatin, MD, Sandra V. Navarra, MD**  
*St. Luke's Medical Center &*

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

### **1. Phil J Int Med 2007**

**2. Lupus An International Journal May 2007; 16 (Abstract Supplement PO295) : 191.**

**3. Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**4. Poster Presentation. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro, Jan 2007**

**PURPOSE:** This study aims to describe the factors affecting compliance to medications among adult Filipino patients with systemic lupus erythematosus (SLE).

**METHODS:** A survey was conducted among adult Filipino patients with SLE being seen at the out-patient Rheumatology Clinics of University of Santo Tomas Hospital and St. Luke's Medical Center from July to December 2006. Each patient was asked to complete the Compliance-Questionnaire-Rheumatology form. Quality of life, disease activity and organ damage were assessed using the Short Form (SF) 36, SLE disease activity index (SLEDAI) and Systemic Lupus International Collaborating Clinics (SLICC) Damage Index, respectively. Data were statistically analyzed using comparison of means.

**RESULTS:** A total of 70 patients (all females) were included in the study with a mean age of  $36 \pm 2$  (range 19 – 70 years old) and mean disease duration of 68 months  $\pm 7$  (range 1 - 286). About half were single (38, 54%), and 39(56%) had attained a college level of education; 17(24%) were housewives and 36(51%) were with income below the minimum wage. The mean SLEDAI was  $4 \pm 0.5$  (range 0 - 20), mean SLICC score  $0.4 \pm 0.1$  (range 0 – 3) and mean SF-36 score  $59 \pm 2$  (range 29 – 98). There was a 71% compliance rate in this cohort of SLE patients. Compliance rate was highest among married (74%), self-employed (88%) patients who attained a grade school level of education (83%) with income above the minimum wage

(76%). Age, disease duration, quality of life, disease activity and organ damage did not significantly affect compliance rate.

**CONCLUSION:** In this cohort of Filipino patients with SLE, the overall compliance rate was 71% with the highest compliance found among those who are married and self-employed. An unexpected finding was the poorer compliance among those with higher levels of education. Age, disease duration, quality of life, disease activity and organ damage did not significantly affect the compliance of patients to medications. Since compliance is vital to the effective management of SLE, our observations reiterate the need to further study the other possible factors affecting compliance to medications in order to develop more focused patient education programs.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation

### **S25 Correlation of a Systemic Lupus Erythematosus-Specific Quality-of-Life Instrument (SLEQOL) with the Medical Outcomes Survey Short Form-36 (MOS SF-36)**

**Sandra V. Navarra, MD, Anna Regina Banatin, MD, Harold Michael Gomez, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

- 1. Lupus An International Journal May 2007; 16 (Abstract Supplement PO153) : 136.**
- 2. Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
- 3. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007**

**PURPOSE:** To assess the quality of life of a group of Filipino patients with systemic lupus erythematosus (SLE) using the SLE-specific quality-of-life (SLEQOL) instrument and correlate this with the general QOL medical outcomes survey short form-36 (MOS SF-36) instrument.

**METHODS:** SLE patients seen at the Rheumatology Clinics of the University of Santo Tomas Hospital from October to December 2006, participated in the survey. Each patient was asked to complete the SLEQOL and MOS SF-36 questionnaires. The SLEQOL consisted of 40 questions categorized into 6 subsets, each question with 7 responses (ranging from 1 to 7, from best to worst); the total score can range from 40 to 280. MOS SF-36 consisted of 36 items grouped into 8 domains, with varying range of responses with the *higher* scores indicating better state or quality of life. Statistical analyses utilized the Spearman's rank correlation coefficient, to determine correlations between the domains of both QOL instruments.

**RESULTS:** There were 59 patients ( 57 females), with a mean age of 34±12 years old, and a mean disease duration of 71±63 months. The overall mean scores for the SLEQOL and MOS SF-36 were 94.71±33.19 (range 40 to 176) and 58.92 ±17.13 (range 28 to 98), respectively. Overall, there was a trend towards a concurrence between the SLEQOL and MOS SF-36 scores. The correlation between the 2 instruments was significant between the role-physical in SF36 with symptoms (p=0.0304) and medical treatment (p=0.0313) in the SLEQOL. Body pain, vitality, social functioning, physical and mental health in SF-36 correlated significantly with the emotions domain (self consciousness, feeling low, depression and anxiety) in SLEQOL, p<0.05. The overall score of SF36 significantly correlated with the symptoms, medical treatment and emotions in SLEQOL, p<0.05.

**CONCLUSION:** There was a general agreement between the SLEQOL and MOS SF-36. The correlation was most evident in the emotional domain of the SLEQOL.

**Research Grant Support:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S26 Acute Motor-sensory Axonal Neuropathy in Association with Systemic Lupus Erythematosus: A Case Report**

**Rodellen D. Consignado, MD, Juan Javier T. Lichauco**  
*St. Lukes Medical Center*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO155): 137.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**

**PURPOSE:** Peripheral neuropathy occurring in 20% of patients with systemic lupus erythematosus (SLE). Acute ascending inflammatory demyelinating polyradiculoneuropathy (AIDP) or classic Guillain-Barre Syndrome (GBS) has been reported either as an initial presentation or complicating feature of SLE. We describe a diagnosed case of systemic lupus erythematosus who presented with acute motor-sensory axonal neuropathy (AMSAN), an axonal variant of GBS.

**METHODS:** A 37-year-old female diagnosed with SLE (photosensitive rash, leucopenia, ANA 1:640 speckled, positive anti-double stranded DNA and IgG anti-cardiolipin) was admitted because of progressive weakness of the lower extremities. Two months prior to admission, she noted progressive numbness and heaviness of the feet and legs, which resulted in difficulty in ambulation. Review of systems was remarkable for weight loss, anorexia, occasional arthralgias and alopecia, constipation and urinary incontinence.

**RESULTS:** Pertinent physical exam findings include marked distal less than proximal muscle weakness, bilateral foot drop, areflexia and patchy sensory loss in the lower extremities. The patient was also noted to have a lax sphincteric tone.

Random blood sugar, serum electrolytes, thyroid function test, serum vitamin B12 and folate levels were all normal. Cauda equina syndrome was considered, but the MRI of the lumbosacral spine was likewise unremarkable. Cerebrospinal fluid analysis showed elevated protein (90mg/dL) and negative CSF cultures. EMG-NCV demonstrated a severe, distal, symmetrical neuropathy of the lower extremities affecting both the sensory and motor nerves of a primary axonal nature with evidence of secondary demyelination. She was given pulse methylprednisolone and intravenous immunoglobulin (IVIg) for five days. A few days after completing treatment, improvement in motor strength of the lower extremities and knee jerk reflex were noted.

**CONCLUSION:** AMSAN has rarely been associated with SLE and the presence of anti-cardiolipin antibodies may play a pathogenic role through antibody-mediated cytotoxicity. This case likewise illustrates a potential role of combination therapy of IVIg and IV steroids with AMSAN. Early recognition and treatment can result in a favorable prognosis, but more studies are needed to confirm these findings.

### **S27 Carotid Intima Media thickness and Carotid Plaque in Filipino Patients with Systemic Lupus Erythematosus**

**Juan Javier T. Lichauco, MD, Christine B. Bernal, MD, Sandra V. Navarra, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*  
*St. Lukes Medical Center*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO407) : 238.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
3. **Poster Presentation. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007**

**PURPOSE:** To determine the prevalence of atherosclerosis by carotid ultrasound, and its associated risk factors among Filipino patients with systemic lupus erythematosus (SLE).

**METHODS:** Included were SLE patients seen at the Rheumatology Clinics of University of Santo Tomas Hospital (USTH) and St. Luke's Medical Center (SLMC), Philippines. Carotid intima-media thickness (CIMT) and the presence of plaque were determined using carotid ultrasonography. Risk factors associated with CIMT and carotid plaque were evaluated, including traditional risk factors like lipid profile, hypertension, inflammatory markers like C-reactive protein (CRP), cumulative prednisone dose and SLE disease characteristics.

**RESULTS:** There were 56 SLE patients (55 females) with a mean age of  $35.1 \pm 10.5$  SD (range 20 to 56). CIMT was normal in all patients with a mean of  $0.475 \pm 0.62$  mm SD. Eight patients (14.3%) had at least 1 carotid plaque observed. Risk factors associated with carotid plaque included older age, higher systolic and diastolic blood pressures, elevated blood sugar levels, elevated total cholesterol and LDL-C levels ( $p < 0.05$ ). Except for an observed association of carotid plaque in those without arthritis ( $p < 0.05$ ), there were no significant associations with other SLE-specific variables.

**CONCLUSION:** Traditional risk factors for atherosclerotic disease were associated with carotid plaque in this group of lupus patients. Although lupus itself did not seem to provide lupus patients. Although lupus itself did not seem to provide an additional risk in this study, current studies are underway to include more patients as well as age and sex-matched controls, in order to more accurately address this issue.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S28 Usefulness of Dexamethasone Pulse Therapy in SLE Thrombocytopenia**

**Bernadette Heizel Manapat-Reyes, MD, Armando C. Lontoc, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. Department of Medicine-UP-PGH Research Forum. Oct 2005
2. Poster Presentation. 12<sup>th</sup> APLAR Congress. Kuala Lumpur, Malaysia, August 2006
3. APLAR Journal of Rheumatology 2006; 9(suppl.1) A256
4. Lupus An International Journal May 2007; 16 (Abstract Supplement PO370) : 223.
5. Poster Presentation. 8<sup>th</sup> International Congress on SLE. May 2007. Shanghai, China.

**BACKGROUND:** Severe thrombocytopenia is one of the lupus manifestations that need emergency treatment. In many instances, pulse methylprednisolone is not available or affordable but dexamethasone can easily be secured. This study reports our clinical experience with dexamethasone for lupus thrombocytopenia.

**OBJECTIVES:** To describe outcomes of dexamethasone pulse therapy for severe thrombocytopenia in systemic lupus erythematosus (SLE).

**METHODS:** This is a review of 10 patients, diagnosed to have SLE according to the revised American College of Rheumatology classification criteria, who were admitted to our center for profound thrombocytopenia (platelet count < 20000/mm<sup>3</sup>), with or without signs of bleeding. They were treated with oral dexamethasone 40 mg/day for 4 consecutive days. Treatment response was considered to be positive if within a two week period, there is a rise of the platelet count to >50,000/mm<sup>3</sup> and resolution of bleeding.

**RESULTS:** Ten female patients were included in the study. Mean age was 30.8 years. Disease duration ranged from 2 months to 16 years. Platelet counts were taken at baseline, 7 and 14 days after dexamethasone pulse therapy. There was a positive treatment response in 8/10 (80%) of patients. However, one responder later died of septicemia. Two patients had refractory thrombocytopenia and died of bleeding complications.

**CONCLUSION:** There was improvement in thrombocytopenia and resolution of bleeding in 80% this small group of patients with lupus-induced thrombocytopenia. Mortality was 30%. This study shows possible usefulness of dexamethasone for severe thrombocytopenia but confirmation is needed through randomized controlled trials.

### **S29 Risk Factors for Avascular Necrosis of the Femoral Head Among SLE Patients at the Philippine General Hospital**

**Rogelio A Balagat, MD**  
*Rheumatology Section, Department of Medicine UP-PGH, 2006*

**BACKGROUND:** Avascular necrosis(AVN), a common complication of steroid therapy, occurs in between 0% and 52% of patients receiving glucocorticoids. It causes pain and disability, and treatment is unsatisfactory; some patients need total joint replacement. Although all SLE patients receive glucocorticoids, not all develop AVN—only 2.8%-16%. Thus, other patient-specific risk factors affect the chance of developing AVN among SLE patients. Treatment of these risk factors may change outcome.

**OBJECTIVE:** To identify the known risk factors for AVN among SLE patients in PGH.

**METHODS:** Of the 595 SLE patients on file, the 16 patients who carried the dual diagnosis of SLE and AVN of the femoral head were included in the study. The following characteristics were looked into: age at which SLE or AVN was diagnosed (years), the duration from the report of hip pain to the confirmation by

imaging (months), the presence of hip pain, and the stage of the AVN on imaging (x-ray and/or MRI), with reference to the collapse of articular cartilage, as either pre-collapse or post-collapse stage. The presence of the following 15 risk factors was determined: Young age  $\leq 40$ , Cyclophosphamide treatment (CTX), Arthritis, Obesity, Hypertension, Dyslipidemia, Methylprednisolone pulse therapy (MPPT), High-dose Prednisone ( $>30$  mg/day), Cushingoid appearance, Diabetes Mellitus, Osteoporosis, Vasculitis, Anti-phospholipid antibody syndrome (APAS), Raynaud's phenomenon, and smoking. Chart review and descriptive statistics were employed.

**RESULTS:** Of the 595 SLE patients, 2.7% had symptomatic AVN (16/595). All 16 subjects were female, with a mean age of 35 (21-59). The mean age of onset for SLE was 28.5 (16-58) and for AVN was 32.5 (17-59). The average time it took from the first report of hip pain to the diagnosis by imaging was 4.25 months (1-12 months). Hip pain and stage were discrepant for 5 patients: 4 cases with unilateral hip pain and bilateral hip involvement, and 1 case with bilateral hip pain and unilateral hip involvement; all these cases were documented by MRI. Eleven patients had hips in the post-collapse stage ; 6 patients had pre-collapse hips picked up by MRI and only 2 by x-ray. Young age was the most common risk factor (81%) and Osteoporosis, APAS, and Raynaud's phenomenon were the least common (6% for each). Case no. 7 had the most number of risk factors (11/15) identified (except for Osteoporosis, APAS, Raynaud's phenomenon) but had a time to diagnosis of less than 2 months and a unilateral pre-collapse hip. Two cases, no. 5 ( Young age and CTX) and no.9 (Young age and Obese) had the least number of risk factors, both had pre-collapse hips. Six patients were on high-dose Prednisone at the time of diagnosis of AVN , of whom 2 had pre-collapse and 4 post-collapse hips Five patients had a history of MPPT, of whom 2 had pre-collapse and 3 post- collapse hips. All were non-smokers.

**RECOMMENDATION:** This survey on risk factors for AVN highlights its multifactorial pathogenesis. Screening for risk factors may allow timely intervention and possibly alter clinical outcome. A prospective study to evaluate the predictive value or the effect of active treatment of these risk factors is recommended.

### **S30 An Unusual Differential for Arthritis in Systemic Lupus Erythematosus**

**Sheryll Ann F. Galicia MD , Rogelio A. Balagat MD, Heizel Bernadette Reyes MD, Evelyn O. Salido MD**

*Rheumatology Section, Department of Medicine UP-PGH*

1. **Poster Presentation. PRA Annual Convention. Manila. Jan 2006**
2. **Lupus An International Journal. 16 (Abstract Supplement PO135) : 129. May 2007**
3. **Poster Presentation. 12<sup>th</sup> APLAR Congress. Kuala Lumpur, Malaysia, August 2006**
4. **APLAR Journal of Rheumatology 2006; 9(suppl.1) A602**

**OBJECTIVES:** To emphasize the importance of including gouty arthritis among the differentials for acute inflammatory arthritis among patients with Systemic Lupus Erythematosus.

**METHOD:** Case report of a patient seen at the University of the Philippines-Philippine General Hospital, Manila, Philippines

**RESULTS :** A 31 year old female was diagnosed with systemic lupus erythematosus at 12 years of age based on: malar and discoid rashes, photosensitivity, (+) ANA, arthritis, and mesangial proliferative nephritis. She has hypertension and steroid-induced diabetes mellitus. She is receiving Prednisone 5 mg od, Calcium carbonate 500 mg bid, Enalapril 20mg with Hydrochlorothizide 12.5 mg od, Felodipine 10 mg od , Metoprolol 100 mg bid and Humulin N 20-10 units. She is also on quarterly cyclophosphamide infusion. She was admitted for recurrent ischiorectal abscess and later occurrence of acute inflammatory arthritis of her right knee. An arthrocentesis, done to rule out possibility of septic arthritis, yielded 20 cc of yellow, slightly turbid synovial fluid with good string sign, and white cell count of  $1,570 \times 10^6/l$  (PMN 96%, lymphocytes 4%). Bacteriologic studies were negative but further analysis showed numerous negatively birefringent, intracellular monosodium urate crystals. The arthritis resolved after two days of treatment with colchicine, prednisone at 15 mg daily and tramadol but recurred a few days later. The patient responded to a dose of intraarticular steroids and discontinuation of thiazide diuretics.

**CONCLUSION:** Gouty arthritis is a very important differential diagnosis among systemic lupus erythematosus patients with acute inflammatory monoarticular arthritis especially among those on diuretics.

### **S31 Utilization and Predictive Value of Antinuclear Antibody Test Among Patients with Systemic Lupus Erythematosus Referred to the Section of Rheumatology in the University of the Philippines-Philippine General Hospital**

**Nympha D. David, MD, Ester G. Penserga, MD, Evelyn O. Salido, MD, Paulo P. Lorenzo, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Phil J of Internal Medicine Nov-Dec 2000, 38(6):291-294.**

**OBJECTIVES:** This study aims to determine the appropriateness and usefulness of the antinuclear antibody test (ANA) test as used in our center in making a diagnosis of systemic lupus erythematosus (SLE). It also intends to determine the clinical symptoms that prompt physicians to request for the test. Lastly, it seeks to determine the degree of agreement between physicians in making a diagnosis of SLE

**METHODS:** Charts of adult patients who underwent ANA test at the Medical Research Laboratory (MRL) and were later referred to the Rheumatology Section were included for review. Clinical data were recorded using a case report form. Appropriateness and usefulness of ANA test were determined by correlating the clinical diagnosis made by three evaluators with the ANA positivity, from which, the sensitivity and specificity were estimated. The positive and negative predictive values were also determined. The data analyzed using a 2x2 table.

**RESULTS:** Ninety-seven charts were available for review. Of these patients, 51 (53%) were ANA positive and 46 (47%) were ANA negative. The most common symptoms which prompt the request for an ANA were arthritis, arthralgia and myalgia. The estimated sensitivity of the test as utilized in our center was 84%, specificity was 67%, positive predictive value was 61%, and negative predictive value was 87%. The likelihood ratio of the test was 2.51. The computed degree of agreement (kappa) was 0.79 between the residents and fellows and consultants, and 0.90 between consultants.

**CONCLUSIONS:** The most common clinical symptoms that prompt the referring physicians to request for an ANA test were musculoskeletal complaints. As utilized in this center, the ANA test has fairly good predictive value and is most useful as screening test. It was noted that the higher the level of specialty training of the evaluating physician, the higher is the degree of concordance in making the diagnosis of SLE

### **S32 Prevalence of Dyslipidemia in a Cohort of Filipinos with Systemic Lupus Erythematosus**

**Anna Regina R. Banatin,MD, Sandra V. Navarra,MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation .14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Poster Presentation - The 8<sup>th</sup> International Lupus Congress, Shanghai, China May 23-27, 2007**
3. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO413) : 240.**

**PURPOSE:** To describe the prevalence of dyslipidemia in a cohort of Filipinos with systemic lupus erythematosus (SLE), and any association with SLE disease characteristics and activity.

**METHODS:** Included were SLE patients consecutively seen at the Rheumatology Clinics of the University of Santo Tomas Hospital from August to December 2006. Demographic and SLE disease profile including cumulative prednisone were recorded, and disease activity measured by SLE Disease Activity Index (SLEDAI). Searches for associated and contributory risk factors were obtained including body mass index (BMI), smoking history, diabetes mellitus, stroke and hypertension. Laboratory examinations included lipid profile, high-sensitivity C reactive protein (hs-CRP), and erythrocyte sedimentation rate (ESR). Statistical analysis was done using Spearman's rank correlation coefficient.

**RESULTS:** Included were 85 patients (82 females) with a mean age of 34±11 SD years. The mean age at diagnosis was 28±9 SD years (range 1 to 28 ) with a mean disease duration of 70±63 SD months (range 16 to 70). The mean BMI was 22.9±4.0 SD kg/m<sup>2</sup>. The prevalence of dyslipidemia in this study was 65.3%,

detailed as follows: 10.6% with total cholesterol  $\geq 200$  mg/dL, 22.6% with triglycerides  $\geq 150$  mg/dL, 65% with HDL cholesterol level  $\leq 40$  mg/dL and 6 % with LDL cholesterol level  $\geq 130$  mg/dl. There was no significant correlation between dyslipidemia and SLE disease duration, BMI, SLEDAI, cumulative prednisone, smoking, hypertension, diabetes mellitus, stroke nor ESR. CRP was significantly correlated with the hypertriglyceridemia and elevated VLDL cholesterol,  $p < 0.05$ .

**CONCLUSION:** Our findings suggest a relatively high prevalence of dyslipidemia in this cohort of patients with SLE, reiterating the need to screen and closely monitor these patients for related complications including accelerated atherosclerosis.

**Research grant support:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc

### **S33 Mannose-Binding-Lectin (MBL) *LX* Haplotype and Steroid Dose as Risk Factors for Infection among Filipino Patients with SLE**

**Sandra V. Navarra, MD, Rosario P. Baes, MD, Charles A.C. Villamin, MD, Andres G. Victorio, MD  
Ma. Rhona G. Bergantin, MD, Julie Li-Yu, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, University of Santo Tomas (UST)  
Faculty of Medicine and Surgery & UST Hospital, Manila, Philippines*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO220) : 161.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
3. **Published in Lupus Journal 2007**
4. **Poster Presentation. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**

**INTRODUCTION:** Infections are an important contributing factor to mortality and morbidity in systemic lupus erythematosus (SLE), largely due to immunosuppressive drug therapy. In addition, the presence of the promoter *LX* haplotype in the mannose binding lectin (MBL) gene is associated not only with increased susceptibility to SLE, but also with decreased levels of MBL. Since MBL activates the complement system leading to opsonization or direct killing of micro-organisms, decreased MBL levels may further predispose these patients to infections.

**OBJECTIVE:** We analyzed the effects of the presence of promoter MBL haplotype *LX* gene, steroid dose and other immunosuppressive drug use on infection risk in a cohort of Filipino SLE patients.

**METHODS:** Included were SLE patients seen at the Section of Rheumatology of the University of Santo Tomas (UST) Hospital, Philippines, from 2003 to 2006, who were genotyped for the promoter region of the human MBL *LX* haplotype by polymerase chain reaction with sequence-specific primers (PCR-SSP). Clinical data derived from individual medical records included occurrence, type and severity of infections, and immunosuppressive therapy (prednisone, azathioprine, IV cyclophosphamide and methylprednisolone pulse) within a month of each infection. Statistical analyses included determination of incidence rates of infections, odds ratio and one-way analysis of variance (ANOVA) to determine any association of the MBL *LX* gene, steroid dose and use of other immunosuppressive drugs with the occurrence of major infections.

**RESULTS:** The demographic and MBL *LX* gene profiles are outlined in Table 1. The estimated odds of having a major infection was 2.7 times higher among patients positive for MBL-*LX* than in those without this haplotype (95% CI = 1.001 to 7.199;  $p$  value = 0.0487). The mean number of infections was significantly higher among patients having the MBL *LX* haplotype ( $2.11 \pm 1.96$  SD) compared to those without this haplotype ( $1.72 \pm 0.94$  SD),  $p = 0.045$ . The major infections according to MBL *LX* gene profile are outlined in Table 2. There was no significant difference in the SLE disease duration to occurrence of *first* infection between the two groups. Table 3 outlines the average prednisone dose within the occurrence of the 3 most common major infections. There was no significant difference in the prednisone dose among these 3 infections, and the mean doses of prednisone for both MBL *LX* positive and negative patients were comparable. The effect of azathioprine, cyclophosphamide, and IV pulse methylprednisolone could not be meaningfully analyzed in this cohort due to limited utilization.

**CONCLUSION:** In this cohort of Filipino SLE patients, the presence of MBL *LX* haplotype increased the risk of major infections commonly tuberculosis, herpes zoster, and pneumonia. The average prednisone dose at the occurrence of these infections ranged from 11 to 15 mg/day. Our findings reiterate the need to

always consider the infectious complications of immunosuppressive therapy, particularly steroids, on these already genetically immunocompromised patients.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc

### **S34 Adopting a Web-based Filipino Lupus Registry: A pilot study**

**Millicent Tan-Ong,MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Young Investigator Awardee and Poster Presentation. 8th International Congress on SLE. China, May 2007.**
2. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO418) : 242.**

**PURPOSE:** To evaluate the feasibility of a web-based registry intended to complement the initiatives of the National Filipino Lupus Registry Project.

**METHODS:** A web-based registry program was developed by the University of Santo Tomas (UST) Section of Rheumatology, Clinical Immunology and Osteoporosis in cooperation with the Philippine Rheumatology Association, and introduced to a cohort of systemic lupus erythematosus (SLE) patients in August 2006. A pilot session was conducted to enable lupus patients to try the lupus web-based registry. All patients provided informed consent. The questions were in English, the official language used in government and formal documents in the Philippines. There were 42 questions which included demographic data, organ involvement of SLE, their physicians' names and how they came to know of the lupus registry. Patients' caregivers and six staff members were allowed to assist in the process. All entries were treated in the strictest confidentiality. The sessions were evaluated as to the length of time it took the participants to answer, the ease with which they understood the English questionnaire, and other comments and suggestions from the patients, caregivers and staff.

**RESULTS:** There were 35 female lupus patients, mainly coming from the National Capital Region (NCR) who participated in the pilot session. The time duration to complete the registry was less among younger patients, while the older patients took more than ten minutes to complete the questionnaire. One difficulty was in the use of the English language, with a minority of patients requiring assistance in answering the questions by first translating the questions into the vernacular. Some patients needed instructions in simple computer tasks such as turning on the equipment and typing, as well as creating an email address.

**CONCLUSIONS:** Lessons learned from this experience included the following: (1) providing a Filipino translation to the questionnaire, with options to on the choice of language preferred by the user; (2) enhancing computer literacy and familiarity with the internet; and (3) motivation to participate in the nation-wide lupus registry. On the whole, these are readily attainable goals, particularly if intended to complement (rather than replace) the "paper-based" registry, and if placed in the context of the national lupus registry project.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S35 Presenting Manifestations and Clinical Syndromes of Filipino Patients with SLE**

**Charles A.C. Villamin,MD, Sandra V. Navarra, MD**

*University of Santo Tomas, Manila, Philippines*

1. **13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**
2. **Modern Rheumatology Suppl 16:158,2006**

**OBJECTIVE:** To describe the presenting clinical manifestations and syndromes of Filipino patients on diagnosis of systemic lupus erythematosus (SLE)

**SETTING:** Tertiary hospital

**METHODOLOGY:** Retrospective review of medical records of Filipino SLE patients included in the Lupus Database of the University of Santo Tomas (UST) in Manila Philippines. All patients fulfilled the

American College of Rheumatology (ACR) criteria for SLE. The following data were recorded: (1) demographic profile; (2) clinical manifestations on SLE diagnosis; (3) clinical syndromes prior to and during fulfillment of diagnostic criteria for SLE, and disease interval from diagnosis of the syndrome to SLE diagnosis.

**RESULTS:** The clinical data of 1080 patients entered into the UST Lupus Database as of October 2005, were analyzed. The average age at SLE diagnosis was  $28.5 \pm 11.5$  SD (range 1 to 71 years), with 1025 females and 45 males. The most common presenting manifestation was arthritis (68%), followed by malar rash (49%), renal (47%), photosensitivity (33%), and oral ulcers (33%). The following clinical syndromes were recorded prior to or during SLE diagnosis: nephrotic syndrome (30%), rheumatoid arthritis (RA, 28%), fever of undetermined origin (FUO, 26%), autoimmune hemolytic anemia (AIHA, 26%), undifferentiated connective tissue disease (UCTD, 22%), and idiopathic thrombocytopenic purpura (ITP, 12%). Among these, AIHA *preceded* the diagnosis of SLE within the longest interval ( $20.3$  months  $\pm$  30.6 SD, range 1 to 194).

**CONCLUSIONS:** In this large database of Filipino patients with systemic lupus erythematosus (SLE), the most common presenting manifestation was arthritis, with renal involvement occurring in almost 50%. Among the clinical syndromes, nephrotic syndrome was the most common, while AIHA recorded the longest interval preceding SLE diagnosis at an average of 20.3 months. Our findings are similar to data from other countries and underscore the broad range of manifestations of SLE. It also reinforces the need to establish and maintain SLE databases in order to enhance awareness, early diagnosis and more efficient management of the disease.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation

### **S36 Ulcerative Colitis in Association with Systemic Lupus Erythematosus: A Rare Multiple Autoimmune Phenomenon**

**Cheryl Anne Dela Cruz, MD, Edgar Ramiterre, MD, Gemma Otero, MD, Josefino Ramos, MD**

**14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007**

Inflammatory bowel disease and systemic lupus erythematosus are common autoimmune diseases that affects 2-3 million people in the USA alone but these two diseases occurring together has an incidence of only about 6.5 per 100,000, a rare event.

This is a case of a 43 year old male from Matina, Davao City who initially presented with recurrent hematochezia. He was diagnosed to have Ulcerative colitis by colonoscopy, and initially underwent Exploratory laparotomy - subtotal colectomy with end to end anastomosis, transanal approach, and eventually had restorative proctocolectomy, ileal-pouch anal anastomosis & loop ileostomy. The biopsy confirmed the diagnosis. The problem however, did not end there. He developed progressive edema, increasing creatinine levels, persistent anemia even with resolution of the hematochezia, leukopenia and persistent thrombocytopenia. On further work-up, he had an increased 24hr urine albumin, hematuria, ++++ dsDNA, elevated ESR, low C3 and serositis manifested as pleural effusion on chest xray, meeting the criteria for SLE. He is now in remission, and on a maintenance dose of prednisone and azathioprine.

### **S37 Clinical Experience with Mycophenolate Mofetil among Filipino Patients with Lupus nephritis**

**Millicent T. Ong,MD, Linda Charmaine Roberto,MD, Sandra V. Navarra,MD Juan Javier Lichauco, MD, Ester G. Penserga, MD, Augusto O. Villarubin, MD**  
*University of Santo Tomas Hospital, St. Luke's Medical Center, Cardinal Santos Memorial Medical Center, University of the Philippines - Philippine General Hospital, Metro Manila, Philippines*

1. Poster Presentation. 12<sup>th</sup> APLAR Congress. Kuala Lumpur, Malaysia, August 2006
2. APLAR Journal of Rheumatology 2006; 9(suppl.1) A266
3. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007

**OBJECTIVE:** We describe our clinical experience among Filipino patients with lupus nephritis who had used mycophenolate mofetil (MMF).

**METHODS:** Data were retrospectively obtained from medical records of patients seen by rheumatologists at 4 tertiary care hospitals in Metro Manila, who had received MMF for lupus nephritis from January 2003 to June 2006. Baseline demographics, SLE duration and prior immunosuppressive drugs, as well as dose, duration and adverse events of MMF were recorded. The efficacy of MMF was assessed by changes in renal indices, SLE disease activity, corticosteroid dose, and patients' clinical response to MMF as assessed by their attending rheumatologist..

**RESULTS:** Included were 40 Filipino patients (39 females), with mean age of 31.55 years and mean SLE duration of 59 months. Eighteen patients had chronic renal disease stage 2, and 16 of 26 biopsied patients (61.5%) had diffuse membrano-proliferative (WHO Class IV) histology. Average daily MMF dose was 1.18 grams, with mean treatment duration of 16 months (range 3-47). Adverse events seen in 11 patients were transient and mostly gastrointestinal tract – related. Clinical response was assessed as “improved” in 21 patients, “stable” in 12, and “worse” in 7, with a tendency for those with higher baseline average prednisone dose, and higher daily MMF dosage to have a more favorable response. Longer SLE disease duration and older age were associated with less favorable response.

**CONCLUSION:** Our clinical experience reiterates MMF as a reasonable option in lupus nephritis, with an acceptable safety profile. Cognizant of the heterogeneity of individual clinical response to the drug, it will be useful to further study the variables which may influence such treatment responses.

### **S38 Spectrum of Renal Involvement among Filipino Patients with Systemic Lupus Erythematosus**

**Charito F. Cruz-Bermudez, MD Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. 14<sup>th</sup> PRA Annual Convention. Cagayan de Oro. Jan 2007
2. Phil J Int Med 2007
3. Modern Rheumatology *Suppl* 16:159,2006

This study aims to describe the spectrum of renal manifestations in a cohort of Filipino patients with systemic lupus erythematosus (SLE). Medical records of 598 Filipino patients diagnosed with SLE were retrospectively reviewed. The demographic characteristics, spectrum of renal manifestations, and outcomes were evaluated.

Renal involvement was recorded in 45% of Filipino patients with SLE. Various forms of renal involvement included nephritis, nephrotic syndrome, rapidly progressive glomerulonephritis, acute renal failure and chronic kidney disease. Among the patients who underwent renal biopsy, class IV or diffuse proliferative nephritis was the most common histopathologic lesion. Of the 137 patients who received immunosuppressive therapy, 127 (92.7%) were given cyclophosphamide treatment (126 as intravenous (IV) pulse therapy), 8 (5.83%) received azathioprine alone while 2(1.46%) received mycophenolate mofetil alone.

Renal involvement was noted in 45% of our cohort of Filipino patients with SLE, with nephritis as the most common manifestation, and diffuse proliferative nephritis (WHO class IV) as the most common histopathologic lesion. Cyclophosphamide with steroids was the most common treatment regimen used. This paper reinforces the need for early recognition and aggressive management of lupus nephritis, and provides the impetus to further study the outcomes among these patients.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **S39 Disease Outcomes and Survival of Systemic Lupus Erythematosus Filipino Patients at the Philippine General Hospital**

**Mansueto M. Gumban III, MD and Evelyn O. Salido, MD**

*Rheumatology Section, Department of Medicine UP-PGH*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO306) : 195.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
3. **Annals of the Rheumatic Diseases. The EULAR Journal. July 2007; 66 (Supplement II): (SAT 0159) p.477**
4. **Poster Presentation. EULAR Congress. Barcelona, Spain June 2007.**

**BACKGROUND:** Both morbidity and mortality rates in systemic lupus erythematosus have improved as a result of better disease understanding and availability of better treatment options. This study reports survival among Filipino lupus patients treated in a tertiary government hospital.

**OBJECTIVES:** To determine the disease outcomes and the survival rate of Systemic Lupus Erythematosus (SLE) patients at the Philippine General Hospital (PGH) from 1994-2004 and review the variables associated with these outcomes.

**METHODS:** A total of 115 Filipino lupus patients diagnosed from 1994-2004 at the Rheumatology Clinic of the Philippine General Hospital were included. Clinical features at onset, subsequent evolving features at diagnosis and during disease course, laboratory features, treatment, comorbidities, damage and mortality data were obtained. Survival and prognostic factors for mortality were studied by univariate analysis.

**RESULTS:** The patients were predominantly females (96.7%). The female to male ratio was 28:1 and the mean age at onset was 30.8 years. The interval between onset and diagnosis was 11.5 months; most following up for more than 24 months. At disease onset, the most common presenting symptoms were a combination of rash, arthritis and fever. On diagnosis, the most common presentations were malar rash, fever, anemia, discoid rash, oral ulcers and photosensitivity. Thirty patients had organ damage during the course of the disease; skin and kidneys were the two most common organ damaged. There were 12 patients who died and sepsis was the most common cause of death. The 1-, 5-, and 10-year survival rates of our patients were 93, 92 and 91% respectively. Survival analysis for patient groups with or without renal, neuropsychiatric and hematologic involvement did not show statistical difference between these groups. Analysis for predictors of mortality especially of specific organ disease did not reveal any significant predictors as well.

**CONCLUSION:** This study provides updated information on survival among SLE Filipino patients in the last decade of the 20<sup>th</sup> century. The 1-, 5-, and 10-year survival rates of our patients were 93, 92 and 91% respectively. Survival among our patients has followed the trend of improved survival rates in other countries. Infection is still the main cause of early death among our patients

#### **S40 Cutaneous Tuberculosis Mimicking Vasculitis in a Patient with SLE**

**Bernadette Heizer Manapat-Reyes, M.D., Leah G. Balgoa, MD**

*Rheumatology Section, Department of Medicine UP-PGH*

1. **Future in Rheumatology: From Bench to Bedside. Abstract Book . (P321) p. 167. Sept 2004**
2. **Poster Presentation. APLAR 2004. Jeju Korea. Sept 11-15, 2004**
3. **1<sup>st</sup> Place. Case Report Category. 12<sup>th</sup> PRA Annual Convention. Mactan, Cebu. Jan 2005**
4. **Free Poster Presentation. 35<sup>th</sup> PCP Convention. Manila. May 2005**
5. **Phil J Internal Medicine. 43(3): 133-36. May-June 2005**
6. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO131) : 127.**
7. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China., May 2007**
8. **Annals of the Rheumatic Diseases. The EULAR Journal 2007. 66 (Supplement II AB0448):607**

**BACKGROUND** Skin manifestations represent some of the most common findings in SLE. However, skin disorders not related to activity of SLE are not uncommon. Infection with *Mycobacterium tuberculosis* is one such condition. In the same way that cutaneous lupus can be pleomorphic, cutaneous tuberculosis also presents in various ways.

**OBJECTIVES:** To report an unusual cause of skin rash in a patient with SLE.

**STUDY DESIGN:** Case Report

**RESULTS:** An 18-year old female was diagnosed with SLE in 2001 based the American College of Rheumatology criteria, with good control of disease activity on a regimen of prednisone 10 mg and hydroxychloroquine 400 mg daily. She presented with skin rash. Four months earlier, she had cough, fever and reddish nodules on the fingers, shoulders, elbows, legs, and inguinal area. The nodules rapidly evolved into deep ulcers mostly ranging from 1 to 5 cm. in diameter with well-defined borders and clean base. The ulcers failed to resolve with antibiotic treatment. Bacteriologic studies from the ulcer swab were negative. Three months later, a chest x-ray showed pulmonary tuberculosis. She was treated with isoniazid, rifampicin, pyrazinamide, ethambutol, clindamycin and oxacillin. A few days later, she noted pruritic, red, coalescing macules and papules over the entire body, which was diagnosed as adverse drug reaction, necessitating admission to our institution. An initial impression of active lupus with vasculitis was revised by the Rheumatology service. A tuberculous skin infection was considered and confirmed with biopsy of the ulcer showing granuloma formation and numerous acid fast bacilli. She underwent rechallenge with anti-tuberculous drugs. Five months after therapy, there was complete resolution of the skin lesions.

**CONCLUSIONS:** The appearance of skin lesions in a patient with SLE should clue the clinician not only to disease activity but the presence of concomitant infections as well. Tuberculous skin infections present in various ways and may require both bacteriologic and histopathologic studies for confirmation.

#### **S41 The Prevalence of Dyslipidemia in Filipino Patients with Systemic Lupus Erythematosus**

**Leah G. Balgoa, MD, Evelyn O. Salido, MD, Melchor Alan L. Siriban, M., MD, Jesus Emmanuel A.D. Sevilleja, MD**

*Rheumatology Section, Department of Medicine UP-PGH*

1. **Lupus An International Journal May 2007; 16 (Abstract Supplement PO411) : 239.**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. May 2007 . Shanghai, China.**
3. **Annals of the Rheumatic Diseases. The EULAR Journal. July 2007; 66 (Supplement II): (SAT 454) p.607**

**OBJECTIVES:** To describe the prevalence of dyslipidemia in a cohort of Filipino SLE patients and to determine the association between dyslipidemia, clinical factors and treatment regimen.

**METHODS:** This is a cross-sectional study involving fifty adult SLE patients hospitalized or seen at the outpatient clinic of the University of the Philippines-Philippine General Hospital (UP-PGH), a tertiary government hospital from September 2003 to December 2004. Comprehensive histories were obtained through patient interviews and chart reviews . Demographic characteristics, lupus disease activity using MEX-SLEDAI, co-existent disease conditions, treatment regimen, and the lipid profile were obtained for each patient. Laboratory parameters were done at the UP-PGH laboratory.

The results were expressed as the mean  $\pm$  sd. Lipid abnormalities were expressed in frequencies. Comparisons of proportions were performed using a chi-square analysis. A p value  $< 0.05$  was considered statistically significant.

**OUTCOME:** Dyslipidemia was considered to be present if any of the following lipid levels are noted: High density lipoprotein (HDL)  $< 40$  mg/dl, low density lipoprotein (LDL)  $\geq 130$  mg/dl, Total Cholesterol (TC)  $\geq 200$  mg/dl or Total Triglycerides (TG)  $\geq 200$  mg/ dl. Association of lipid abnormalities with clinical factors was also determined through univariate analysis.

**RESULTS:** The prevalence of dyslipidemia was 86%. The most common abnormality was an elevation of TC (79%) and the most common combination was an elevation of TC and LDL (30%). A MEX-SLEDAI score of 3 and higher was statistically associated with levels of LDL (p = 0.04). Current dose of steroids greater than 10 mg of prednisone or its equivalent was also statistically associated with TG levels (p = 0.03). The presence of hypertension was negatively associated with TG levels (p = 0.010). Proteinuria was statistically associated with elevated levels of LDL and TC (p = 0.002 and 0.04).

Higher HDL levels were noted among those taking antimalarials (p = 0.01).. There was no statistical association between the different lipid parameters and obesity, presence of renal involvement, duration of

steroid use, duration of disease, younger age at onset of disease and the use of azathioprine, cyclophosphamide and beta-blockers.

**CONCLUSION:** The prevalence of dyslipidemia among SLE patients is high. The factors associated with lipid abnormalities are MEX-SLEDAI score of 3 and higher, proteinuria and prednisone dose greater than 10 mg/day. The use of antimalarials was negatively associated with lipid abnormalities.

#### **S42 Mycophenolate Mofetil in Lupus Nephritis: A Case Series**

**Augusto O. Villarubin, MD and Ester G. Penserga, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. Department of Medicine-UP-PGH. Annual Research Forum. Oct 2005
2. Poster Presentation. 12<sup>th</sup> APLAR Congress August 2006. Kuala Lumpur, Malaysia

**BACKGROUND:** Renal involvement is a common manifestation of Systemic Lupus Erythematosus (SLE). It presents with a multitude of clinical, laboratory and histopathological manifestations. Despite the use of aggressive immunosuppressants, progression to renal failure may still occur. The advent of mycophenolate mofetil in the suppression of disease activity signals a new era in the management of lupus nephritis. Its role in the inhibition of lymphocyte proliferation is a significant mechanism in targeting the pathogenesis of SLE.

**OBJECTIVES:** We report a local experience with mycophenolate mofetil in lupus nephritis.

**METHODS:** Eleven patients with SLE were studied. All of them have previously received complete courses of pulse cyclophosphamide, oral prednisone and/or azathioprine. Indications for the addition of MMF was uncontrolled disease activity and further renal deterioration.

**RESULTS:** The desired effects of MMF therapy was shown by a reduction in the levels of blood pressure, degree of fluid retention and protein spillage. Likewise, the treatment resulted in the improvement of hemoglobin, wbc and platelet counts. Stability of renal function was correlated with the maintenance of a previously normal creatinine levels.

**CONCLUSION:** MMF showed beneficial effects in the cases with no side effects. It may be useful as an additional treatment for patients with active lupus nephritis not responding to conventional mode of therapy.

#### **S43 Mycophenolate Mofetil in Lupus Nephritis and Thrombocytopenia: a Case Series**

**Ester G. Penserga, MD and Augusto O. Villarubin, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. Lupus An International Journal May 2007; 16 (Abstract Supplement PO255) : 175.
2. Poster Presentation. 8<sup>th</sup> International Congress on SLE. May 2007 . Shanghai, China
3. Annals of the Rheumatic Diseases. The EULAR Journal. 66(Supplement II SAT0160):477. July 2007

**BACKGROUND:** Mycophenolate mofetil is increasingly being used as treatment for lupus nephritis. This is a study reporting its use in a group of Filipino patients with lupus nephritis.

**OBJECTIVE:** To report our experience with mycophenolate mofetil in lupus nephritis and other organ system involvement in Systemic Lupus Erythematosus (SLE).

**METHODS:** This is a descriptive study of thirteen patients with SLE seen in the Section of Rheumatology, Philippine General Hospital and in a private arthritis clinic from 2003-2005. SLE was diagnosed based on the ACR Classification Criteria. MMF was given for the following indications:

1. deterioration in the renal status defined as 20% increase of creatinine from baseline
2. proteinuria > 1 gram/24 hours or qualitative urinary protein of at least 2+ after completion of pulse cyclophosphamide regimen
3. thrombocytopenia unresponsive to pulse methylprednisolone (MPPT) and/or pulse cyclophosphamide.

Outcome parameters include improved protein spillage and improved or normalization of hematologic abnormalities 3 months after start of MMF

**RESULTS:** There were 12 females and 1 male. Mean age was 32 years and mean duration of illness was 6 years. Eleven cases had nephritis: 1 had class III nephritis, 2 with Class V, 5 cases with Class IV; 3 had no histopathologic studies. Proteinuria improved in 9 cases after an average 3 months of MMF. There was no change in 2 cases. One case of Class V nephritis with azotemia and 3 gram proteinuria improved in both proteinuria (1 gram/24 hours) and creatinine (from 488mmol/L to 154mmol/L).

There were 2 cases of severe thrombocytopenia (< 23,000/ cumm and 2,000/cumm) refractory to methylprednisolone pulse, maintenance high dose prednisone, and single dose cyclophosphamide. Both patients improved after 3 months of MMF(platelet counts of 200,000 /cumm and 150,000/cumm).

**CONCLUSION:** MMF showed beneficial effects in most cases of nephritis. Likewise, those with thrombocytopenia that were refractory to MPPT and pulse cyclophosphamide improved. MMF may be beneficial for other organ system manifestations of SLE, specifically, thrombocytopenia.

#### **S44 Decreased Steroid Requirement Following Anti-tuberculosis Treatment in Filipino Patients with Systemic Lupus Erythematosus**

**Sandra V. Navarra,MD, Candice Marie C. Reyes, MD**  
*University of Santo Tomas, Manila, Philippines*

1. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006
2. Proceedings 7<sup>th</sup> International SLE Congress, New York. 2004.

**OBJECTIVE.** To describe the effect of a completed tuberculosis (TB) treatment regimen on certain aspects of systemic lupus erythematosus (SLE) disease activity and steroid requirement in a cohort of Filipino patients with SLE.

**SETTING:** Tertiary hospital

**METHODS.** Retrospective case-cohort review of the medical records of Filipino SLE patients with documented TB infection consecutively seen at the University of Santo Tomas Hospital from 1998 to 2004. The records of 44 patients were screened for sufficiency of information, completion of minimum 6 months anti-TB therapy, and recorded clinic visits up to at least 6 months following completion of anti-TB therapy. Of these, the records of 32 patients were eligible for review. SLE disease activity was measured using items from the SLE disease activity index (SLEDAI) which were consistently recorded at 3 periods: within one month of the diagnosis of TB (TB diagnosis), and one and six months after initiation of TB therapy (1 month TB therapy and 6 months TB therapy); excluded were SLEDAI items which were deemed to be also influenced by tuberculous infection, e.g. fever. The average daily prednisone/prednisone-equivalent dosage was computed at the 3 study periods.

**RESULTS.** The records of 32 patients (30 females) with SLE and tuberculous infection were reviewed. The average age at SLE diagnosis was 32.84 years  $\pm$  14.2SD, with age at TB diagnosis averaging 36.12  $\pm$  13.9SD. The interval from SLE to TB diagnosis ranged from zero (0) to 216 months, with an average of 47.6 months + 51.87 SD. Among the sites involved, pulmonary TB was the most common (18cases); other sites included genitourinary (7), arthritis and osteomyelitis (5), central nervous system (3), and soft tissue abscess (2). There was significant improvement in SLE disease activity parameters of rash, urinary casts and proteinuria comparing these at TB diagnosis and at 6 months TB therapy,  $p < 0.05$ . Although there was a trend towards improvement in the indices of arthritis, mucosal ulcers, and alopecia, these were not statistically significant. The average daily prednisone doses (mg/day) significantly decreased from 17.78  $\pm$  17.42 SD at TB diagnosis to 10.51  $\pm$  15.58 SD at 6 months TB therapy,  $p < 0.05$ .

**CONCLUSIONS:** in this cohort of 32 Filipino patients with SLE and tuberculosis, we observed a significant decline in steroid requirement, and improvement in some SLE disease activity parameters following completion of six months anti-TB therapy. These findings suggest an aggravating role of TB in SLE disease. Furthermore, the potential for drugs like rifampicin to decrease corticosteroid blood levels may further magnify significance of our results.

#### **S45 Refractory Thrombocytopenia In an Elderly Female with Systemic Lupus Erythematosus**

**Paul Santos Estrella, MD, Anna Regina Banatin, MD. Juan Javier Lichauco, MD**  
*St. Luke's Medical Center Philippines*

In systemic lupus erythematosus (SLE), arthritis and cutaneous manifestations are the initial presentation. In the same series, thrombocytopenia was present in 7% of cases. Late onset lupus, on the other hand is rare, and pattern of presentation is often atypical. We describe an elderly female with SLE who presented with thrombocytopenia refractory to high dose steroids. She was given intravenous immune globulin and pulse cyclophosphamide with an immediate and sustained response.

#### **S46 A Survey of Psychosocial Attributes in Filipino patients with SLE**

**Julie T. Li-Yu, MD, Sandra Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**
2. **APLAR Journal of Rheumatology 2007;10:107-111**

**AIM:** To describe various domains of psychosocial attributes among Filipino patients with systemic lupus erythematosus (SLE).

**METHODS:** This is a cross-sectional survey of SLE patients seen at a tertiary centre in Manila, Philippines in 2005. All patients completed self-administered questionnaires. Beck Depression Inventory II (BDI-III), Beck Anxiety Inventory (BAI), and Optimism and Pessimism Scales. Spearman rank correlation coefficient was used to determine association between levels of depression and anxiety.

**RESULTS:** A total of 275 female SLE patients with mean age of 32.57 years  $\pm$  12.26 SD (range 19-68) completed the questionnaires. Various levels of depression, anxiety as well as optimism/pessimism were disclosed by patients. There was a significant association between degree of depression and anxiety,  $P=0.000$ , but not with age at time of survey ( $P=0.099$ ) nor disease duration ( $P=0.584$ ). Areas of concern in the interpersonal domain included irritability, and 'having none or lost interest in sex'. In the socio-cultural domain, prevalent indicators of 'indecisiveness', 'worthlessness', and 'self-criticism' ranged from 42.7% to 47.7%. Descriptors of situational domain included guilt and punishment feelings, loss of energy, concentration difficulty, and tiredness/fatigue; notably 15.3% harboured suicidal thoughts.

**CONCLUSIONS:** This survey among Filipino SLE patients further identified areas of concern in the various interpersonal, socio-cultural and situational domains which may significantly impact on patient's and caregivers' adjustment to the illness, and may thus influence the approach as well as overall response to management of these patients.

Keywords: Filipino, lupus, psychosocial attributes.

**Research Grant:** Rheumatology Educational Trust Foundation, Inc

#### **S47 A Cross Sectional Survey of the Quality of Life Status of Filipino Patients with Systemic Lupus Erythematosus using the SF-36 Instrument**

**Harold Michael P. Gomez, MD, Sandra V. Navarra, MD, Emmanuel C. Perez, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**Poster Presentation. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**

**OBJECTIVE:** To describe the quality of life (QOL) status of Filipino patients with systemic lupus erythematosus (SLE), using the SF-36 QOL instrument.

**METHODS:** The study sample included patients seen at the Rheumatology Clinics of the University of Santo Tomas (UST) Hospital who fulfilled the 1997 ACR criteria for the classification of SLE. The Short-Form Health Survey (SF-36) is a 36-item QOL questionnaire with eight domains representing physical and mental health status. Each domain score is derived from a summation and transformation of item scores, each score ranging from 0 to 100 with higher values representing better self-perceived QOL. After

informed consent was obtained, each patient was asked to answer the SF-36 – either in English or Pilipino, the latter translation having been earlier validated. Scores were then computed and tabulated, and compared with the scores in a Singaporean SLE population.

**RESULTS:** A total of 140 patients completed the questionnaire. The mean age was 33.8 years (range 16 - 69 years), with 97.3% females. The mean SF-36 scores for each of the eight domains were the following (score in the Singaporean population): Physical functioning = 55 (71.4); Role physical = 55 (59.6); Bodily pain = 59 (69.4); General health = 53 (54.4); Vitality = 58 (57.5); Social functioning = 69 (72.7); Role emotional = 62 (70.2); and Mental health = 70 (67.4).

**CONCLUSIONS:** The SF-36 scores in Filipino SLE patients were comparable to the Singaporean group, although there was a trend for lower scores among our population particularly in the physical health domains. This study underscores the need to seriously assess the quality of life of SLE patients, in order to provide a more holistic management approach to this complicated chronic illness.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation

#### **S48 Neurologic and Psychiatric Manifestations among Adults and Children with Systemic Lupus Erythematosus**

**Harold Michael Gomez, MD, Irvin Francis A. Gerez, MD, Sandra V. Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006
2. APLAR Journal of Rheumatology 2006; 9(suppl.1) A261

**OBJECTIVE:** To describe the neuro-psychiatric manifestations in a cohort of patients with systemic lupus erythematosus (SLE), and compare these manifestations between children and adults.

**METHODS:** Retrospective, descriptive. The clinical records of patients diagnosed with SLE at the Section of Rheumatology, Clinical Immunology and Osteoporosis of the University of Santo Tomas Hospital were reviewed for occurrence of neuro-psychiatric (NP-SLE) involvement. The demographic and lupus disease characteristics were described, and the type of NP-SLE involvement tabulated based on the American College of Rheumatology (ACR) Ad Hoc Committee on Neuropsychiatric Lupus Nomenclature.

**RESULTS:** The medical records of a total of 870 patients with SLE were reviewed. The most common manifestation fulfilling the diagnosis of SLE were: ANA positivity (89%); arthritis (63%); malar rash (56%); renal disorder (28%); photosensitivity (21%), and oral ulcers (20%). Of these, 98 had a record of NP-SLE involvement.

There were 10 pediatric cases (9 females) with a mean age of 13.9 years (range 10 to 16) at SLE diagnosis and mean duration of disease from SLE diagnosis to development of NP-SLE manifestations of 42.9 months (range 1 to 143 mos ). Among these, the most common NP-SLE manifestations included cerebrovascular accident (30%), mood disorder (30%), headache (20%) and seizure disorders (20%), with psychosis recorded in one patient.

Among the 88 adult patients (84 females), mean age at SLE diagnosis was 30.66 years ( range 17-56), with a mean of 36 months disease duration preceding the onset of NP-SLE. In this group, the most common NP-SLE manifestations included headache (53%), psychosis (25%), mood disorder (22%), cerebrovascular accident (17%) and seizure disorder (14%).

**CONCLUSIONS:** Cerebrovascular accident and mood disorder were the most commonly recorded NP-SLE manifestations in children, whereas headache was the most common complaint in adults. This retrospective review likely underestimates the true proportion of patients with NP-SLE in contrast to that reported in foreign literature, and warrants further studies on this aspect of SLE considering the associated morbidity and impact on the family and caregivers.

#### **S49 Anti-neutrophil Cytoplasmic Antibodies (ANCA) – Associated Vasculitis in 2 Filipino Patients with Systemic Lupus Erythematosus and Thyroid Involvement**

**Yih Chang Lin, MD, Harold Michael Gomez, MD, Sandra V. Navarra, MD**  
*University of Santo Tomas, Manila, Philippines*

1. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006
2. APLAR Journal of Rheumatology 2006; 9(suppl.1) A261

**BACKGROUND AND OBJECTIVE:** Anti-neutrophil cytoplasmic antibodies (ANCA) has been reported in 3-69% of patients with systemic lupus erythematosus (SLE). We describe two cases of ANCA-associated vasculitis in Filipino patients with underlying SLE and concomitant thyroid involvement.

**CASE REPORTS:** Case 1 is a 34 year old male, who presented with progressive weight loss, palpitations, increased appetite, easy fatigability, polydipsia and polyuria. Thyroid function tests confirmed hyperthyroidism, and he received propranolol and carbimazole, which was later shifted to propylthiouracil and thiamazole. Almost simultaneously, he developed progressive alopecia and erythematous facial rashes. Laboratory examinations showed anemia, proteinuria, hematuria, pyuria with active urinary sediments. Anti-nuclear antibody (ANA) and anti- double stranded DNA (dsDNA) were strongly positive; p-ANCA was also strongly detected. He was started on high dose prednisone and radioactive thyroid ablation therapy. Cyclophosphamide pulse therapy was also initiated for his lupus nephritis.

Case 2 is a 24 year old female who was diagnosed with papillary thyroid carcinoma at age 20, for which she underwent radioactive ablation therapy; a year later, she had total thyroidectomy for recalcitrant disease wherein nodal dissection revealed lymph node metastasis. A few months after surgery, she developed ecchymoses, arthritis, Raynauds phenomenon, anemia, leukopenia, hypocomplementemia and purpuric lesions especially on the lower extremities. ANA, antibodies to Ro(SSA)/La(SSB), and proteinase 3 ANCA were strongly positive. Her symptoms improved on prednisone, and she is currently scheduled for another course of radioactive thyroid ablation therapy.

**SUMMARY:** We have described ANCA-associated vasculitis in 2 Filipino patients with SLE. The antecedent diagnosis of thyroid disease offers an intriguing perspective as to the possible effects of the thyroid condition itself or the thyroid medications on the development of the ANCA-associated vasculitis.

#### **S50 Clinical Experience with Rituximab among Filipinos with Systemic Lupus Erythematosus**

**Karina D. Torralba, MD, Harold Michael Gomez, MD, Sandra V. Navarra, MD**  
*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. 13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006
2. APLAR Journal of Rheumatology 2006; 9(suppl.1) A16

**OBJECTIVE:** To describe the outcomes of SLE patients who have received rituximab – a B cell depleting therapy - for multi-organ disease.

**METHODS:** The case records of SLE patients who received rituximab between August 2004 and July 2005 were reviewed. All patients had active disease unresponsive to standard immunosuppressives. Rituximab was administered as 2 doses of 500 mg intravenous (IV) infusion given 2 weeks apart, each infusion preceded by IV cyclophosphamide 500 mg ; this cycle was repeated after at least 6 months if deemed necessary by the attending rheumatologist. Systemic Lupus International Collaborating Clinics/ American College of Rheumatology (SLICC/ACR) damage scores and SLE disease activity using European Consensus on Lupus Activity Measures (ECLAM) were recorded, as well as adverse events related to treatment. Outcomes were defined and categorized according to organ system involvement.

**RESULTS:** There were nine (9) patients (all female) with a mean age of 37.7 years and mean disease duration of 10.2 years. A total of 20 infusion outcomes were noted, with 2 patients receiving a second cycle of rituximab. The mean SLICC damage score was 4.2 , and ECLAM score at baseline was 4.29 (range 2.5-7 ) . Following each cycle of rituximab, ECLAM scores improved to 50% in 6 of 7 patients, and were unchanged in 2 patients. For those with nephritis, only a partial response was noted, with 2 patients requiring a reinfusion due to worsening renal function. The neuropsychiatric involvement in 2 patients completely resolved with rituximab therapy. The adverse events recorded in 8 patients included

cytopenia in 1 and urinary tract infection in 3 which resolved within 4 weeks after infusion. One patient developed 2 separate episodes of pneumonia which resolved with treatment, each following a cycle of rituximab. One patient who also developed pneumonia, received rituximab in a “last-ditch” attempt to control severe disease activity; she died of sepsis a week following the second infusion.

**CONCLUSION:** Rituximab use in SLE is potentially effective in controlling disease activity, particularly neuropsychiatric involvement. The equivocal efficacy in nephritis may be due to the relatively low dose used in this series. Infections must be aggressively sought and treated in patients receiving rituximab, as in other biological therapies.

### **S51 Renal Outcome of Lupus Nephritis: Patients Treated with Pulse Cyclophosphamide and Low-dose Prednisone in Chong Hua Hospital, Cebu City, January 1, 2003 – December 31, 2004: A Case Series Study**

**John T. Li, MD and Joseph M. Antigua, MD**  
*Chong Hua Hospital, Cebu City, Philippines*

**13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**

**OBJECTIVE:** To determine the renal outcome of Cyclophosphamide (CYC) Pulse Therapy and Low-Dose Prednisone in patients with lupus nephritis aged 16 years old and above seen at Chong Hua Hospital (CHH) from January 1, 2003 to December 31, 2004.

**DESIGN:** A Case Series Study of 12-month duration

**SETTING:** Chong Hua Hospital, a private, 660-bed capacity tertiary hospital

**PARTICIPANTS:** Non-probability sampling whereby 18 patients consecutively seen by a single rheumatologist and eventually admitted at the Hematology-Oncology unit in CHH who fulfilled the inclusions/exclusion criteria during the specified study duration were included in the study. Thirteen patients completed the study.

**INTERVENTIONS:** All patients were given pulse cyclophosphamide therapy (0.5 grams/m<sup>2</sup> body surface area in 500 cc of D5W infused by intravenous route over 4 hours) followed by low-dose prednisone (0.5 mg/kg/day orally) monthly during the first 6 months and quarterly thereafter until the end of the study period at 12 months.

**MAIN OUTCOME MEASURES:** The primary endpoints were improvement in renal laboratory parameters including serum creatinine, creatinine clearance, 24-hour urinary protein, serum C3 and ESR.

**RESULTS:** A total of 13 female subjects completed the study with age ranging from 23 to 44 years (mean age of  $34 \pm 7.1$  years). The median duration of SLE was 5.3 years (range, 1.5 –16) and the median duration of nephritis was 2 years (range, 0.1 – 7.5). The 24-hr urinary decreased ( $P = 0.005$ ), serum creatinine decreased ( $P = 0.01$ ), creatinine clearance increased ( $P = 0.02$ ), serum C3 levels increased ( $P = 0.02$ ) and erythrocyte sedimentation rate (ESR) decreased ( $P = 0.04$ ). Differences in renal parameters between baseline and after 12 months therapy were statistically significant. All the renal laboratory parameters improved in at least 70% of the patients. The renal parameter with the highest proportion of patients with improvement was serum (92.8%). Adverse events were reported in 4 patients (30.8%). One patient had reactivation of Herpes Zoster, 2 patients developed secondary amenorrhea and 1 patient developed pneumonia.

**CONCLUSIONS:** Cyclophosphamide Pulse Therapy in combination with Low-Dose Prednisone results in improved renal outcomes measured 12 months after initiation of therapy in patients with lupus nephritis aged 16 years and above seen at Chong Hua Hospital from January 1, 2003 to December 21, 2004. Though not all patients individually improved in all parameters tested, at least 70% of the patients had significant improvement in all renal laboratory parameters.

### **S52 Extradural Spinal Mass in Patient with Systemic Lupus Erythematosus**

**Syril Bren P. Guillermo, MD and Edgar B. Ramitterre, MD**  
*Department of Internal Medicine, Davao Medical Center, Davao City*

**13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**

**BACKGROUND:** Neuropsychiatric SLE presenting as transverse Myelitis is a rare case, the incidence is only 1.34/million in general population. These group of patients are particularly prone to infections as a consequence of either the disease itself or due to the immunosuppressive therapies. Though TB infection in the Philippines is common, however TB infection presenting as extradural mass is rare in SLE patients.

**OBJECTIVES:** To present a rare case of patient with SLE who was initially diagnosed with transverse Myelitis and developed an extradural spinal mass.

**CASE:** A 29 year old female patient presented with recurrent weakness of both lower extremities. She was diagnosed with SLE in the year 1998 who developed lower motor extremity weakness in the year 2003. She was managed as a case of Neuropsychiatric SLE presenting as transverse myelitis and improved after treatment of methylprednisolone and cyclophosphamide pulse therapy. However, 20 months later, there was recurrence of the signs and symptoms and in contrast to previous admission, at this time there was no improvement with the pulse therapy. MRI was done and revealed an extradural mass. Immediate laminectomy and surgical removal of the mass was done and the biopsy revealed a caseous necrosis which is suggestive of TB infection. She was then discharged improved with the final diagnosis of SLE, extradural mass secondary to TB infection.

**S53 Systemic Lupus Erythematosus Patient with Lupus Hepatitis**

**Rudolph Allan R. Razul, MD and Edgar Ramiterre, MD**  
*Davao Medical Center, Bajada, Davao City*

**13<sup>th</sup> PRA Annual Convention. Westin Hotel, Manila. Jan 2006**

**OBJECTIVES:** To present a case report of a Systemic Lupus Erythematosus patient with jaundice, to discuss the differential diagnoses in this patient, and also to discuss the hepatic involvement in patients with Systemic Lupus Erythematosus.

**SETTING:** This case was diagnosed in a tertiary hospital in Davao City, Davao Medical Center.

**CASE SUMMARY:** A case of 29 year old female who initially presented with prolonged fever and jaundice and was diagnosed with systemic lupus erythematosus with lupus hepatitis. Patient was given methylprednisolone pulse therapy 1 gm for 3 consecutive days with marked improvement. Patient was discharged with maintenance medications of prednisone and azathioprine.

**S54 Polymicrobial Purulent Pericarditis Presenting as Cardiac Tamponade in a Patient with Systemic Lupus Erythematosus**

**Rowena E. De Jesus, MD, Michael L. Tee, MD, Carmen Chungunco, MD, Janice D. Campos, MD, and Ester G. Penserga, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Oral Presentation. Department of Medicine-UP-PGH Research Forum. Oct 2004**

We have presented the only case of polymicrobial purulent pericarditis in a patient with active systemic lupus erythematosus who survived after concomitant therapy with antibiotic, corticosteroid and pericardiostomy. The presence of infection in a patient with SLE pericardial effusion should prompt clinicians to suspect the possibility of infectious pericarditis, even in the absence of cardiac tamponade. This is especially true considering that less than 20% of patients with purulent pericarditis are diagnosed ante mortem.

**S55 Clinical Characteristics of Filipino Lupus Patients Seen over 30 years at the Philippine General Hospital**

**Evelyn O. Salido, MD and Mansueto M. Gumban, III, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. **Lupus An International Journal. 16 (Abstract Supplement PO104): 117. May 2007**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China. May 2007**
3. **Annals of the Rheumatic Diseases. The EULAR Journal. 66(Supplement II SAT0171):480. July 2007**
4. **Poster Presentation. EULAR 2007. Barcelona, Spain. June 13-16, 2007**

**PURPOSE:** To describe the clinical characteristics of Filipino lupus patients and the treatments given at the University of the Philippines-Philippine General Hospital from 1974 to 2004.

**METHODS:** The University of the Philippines-Philippine General Hospital is a tertiary Rheumatology referral center. All patients with Systemic Lupus Erythematosus from 1974 to 1993 (first series) and from 1994 to 2004 (second) attended by the Rheumatology service and with retrievable data were included in this study. For the first series, juvenile and adult-onset patients were included while the second series was limited to adult-onset lupus patients. All patients met the 1982 revised criteria of the American College of Rheumatology (ACR) for classification of SLE. The patients' medical histories and all clinical data were reviewed and pertinent information was entered in a standard data collection form.

**RESULTS:** There were 307 patients included (192 patients in the 1993 series and 115 in the 2004 series). The population studied was predominantly of young females (96.7%) in the third decade of life being seen at the charity service of the hospital. In the 1993 series, there were 13 (6%) patients with juvenile lupus. In the 2004 series, only adult-onset lupus was included, among whom 7.8% had elderly-onset lupus. Mean intervals between onset of symptoms and diagnosis were 9.9 and 11.5 months, respectively. The mean durations of follow-up were 23 and 39 months. The presenting manifestation varied. In the 1993 series, arthritis, rash or renal dysfunction was the most common reported first manifestation. In the 2004 series, a combination of rash, joint pain, and fever was the most common (31%). However, among those presenting with only one manifestation, a rash or arthritis was most common. The most common ACR criteria fulfilled on diagnosis were a positive antinuclear antibody (ANA), malar rash, and arthritis. The most common ANA patterns were homogenous and speckled using indirect immunofluorescence technique. Almost all patients (99%) included were given low or high dose steroids depending on organ involvement. Only 2 patients in the 2004 series were not given steroids but were maintained on an antimalarial agent for rash and arthritis. Patients with severe flare, life-threatening event or persistent organ threatening involvement not controlled by high dose steroids were given other immunosuppressive agents (cyclophosphamide, azathioprine, mycophenolate mofetil).

**CONCLUSION:** This 30-year population of Filipino lupus patients seen at the Philippine General Hospital is composed predominantly of young females presenting with rash, arthritis, or fever. There is considerable time lag (9-11 months) before they are seen in a rheumatology clinic. Treatment is mostly with steroids but those with organ-threatening disease, like nephritis, were given cytotoxic drugs as well.

#### **S56 Cryptococcal Meningitis in Systemic Lupus Erythematosus: A Report of Two Cases**

**Tommy E. Bangayan, MD and Evelyn O. Salido, MD, FPCP, FPRA**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Phil J Internal Medicine, 42(3): 141-145. May-June 2004**

Two cases of cryptococcal meningitis were documented in patients diagnosed to have systemic lupus erythematosus. Cryptococcal infections can occur among individuals who are on steroids, have lupus and other immunocompromised states like cancer, leukemia, organ transplants, congenital immune deficiencies and HIV infection. Rarely, it can occur in someone with no risk factors.

The clinical presentations of cryptococcal meningitis vary from one patient to another. It is important to consider this fungal infection in patients with SLE who present with neuropsychiatric lupus, headache, neurologic deficits, increased intracranial pressures and lymphopenia; so that appropriate anti-fungal drugs can be instituted early.

### **S57 Retinopathy and Other Ocular Complications in Systemic Lupus Erythematosus**

**Michael L. Tee, MD, Ramil S. Lising, MD, Evelyn O. Salido, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. **Phil Academy of Optha Annual Convention. Nov 2003**
2. **Phil J of Ophthalmology, 29:17-20. Mar 2004**
3. **Poster Presentation. 11<sup>th</sup> PRA Annual Convention. Manila. Jan 2004**
4. **Poster Presentation. EULAR Convention 2004. Berlin**

**RESEARCH QUESTION:** What are the significant ocular complications in systemic lupus erythematosus (SLE) in relation to other clinical manifestations?

**BACKGROUND:** Vision-threatening diseases in SLE can be a manifestation of disease activity and severity. It can also be an effect of treatment.

**OBJECTIVES:** To investigate the association between the ocular diseases in SLE, and to clarify its significance in relation to other clinical variables.

**GENERAL STUDY DESIGN:** Prospective Cross-Sectional

**OUTCOME MEASURES:** We abstracted clinical data of SLE patients, including disease activity index, disease and treatment duration. All patients had a standard ocular examination to evaluate for tear function, ocular pressure, lens opacity, color vision and retinal abnormality.

**ANALYSIS:** Test of statistical significance of differences of means between the two groups was assessed using the Student's t-test. Differences of proportions between groups were evaluated using either the Chi-Square or the Fisher's exact test.

**RESULTS:** Retinopathy was found in 10/78 (12.82%) of patients. These findings included soft exudates, hemorrhage, vasculitis, ghost vessels, vitreous hemorrhage, optic atrophy and pre-retinal membrane. Retinopathy was found to be more common among patients with pleuritis (OR=9.29, 1.18-76.61), lymphopenia (OR=3.86, 0.81-18.54) or vasculitis (OR=5.79, 1.21 to 29.16). Admitted patients have a higher incidence of retinopathy (OR=8.95, 1.54 to 67.29). Nephritis tends to protect patients from retinopathy (OR=0.17, 0.02 to 1). We found one patient with keratoconjunctiva sicca and one patient with glaucoma. Posterior subcapsular cataract was found in 12/78(15.38%) who were given at least 15 months of glucocorticoid therapy. Majority of the patients 66/78 (84.4%) did not have ocular complaint.

**CONCLUSION:** Incidence of retinopathy among Filipino SLE patients is similar to that in previous reports. We have established that retinopathy is associated with vasculitis, pleuritis, lymphopenia and hospital admission. Posterior subcapsular cataract is related to long duration of glucocorticoid therapy

### **S58 Cardiovascular Involvement in Systemic Lupus Erythematosus: A 40-Year Review of Cardiac Necropsy**

**Michael L. Tee, Tommy E. Bangayan, Clemente M. Amante, Eric Jason B. Amante**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. **Poster Presentation. American College of Rheumatology. Orlando, Florida, Nov 2003**
2. **Poster Presentation. 12<sup>th</sup> PRA Annual Convention. Manila, Jan. 2004**

**Background:** Understanding clinicopathologic correlation of duration of corticosteroid use and cardiac necropsy data may provide valuable insight regarding the impact of chronic steroid use in the cardiac outcomes of SLE patients.

**OBJECTIVES** To analyze the clinical and necropsy cardiac observations between SLE patients who have received corticosteroid therapy for 1 month or more (Group1) and those who have received corticosteroids for less than 1 month prior to demise (Group2).

**METHODS:** We retrieved autopsy reports of patients with systemic lupus erythematosus done from 1963 to 2003 in a 700-bed government hospital. We abstracted clinical and cardiac necropsy data. The duration of steroid intake was used as the stratification variable. Test of statistical significance of differences of

means between the two groups were assessed using the Student's t-test. Differences of proportions between groups were evaluated using either the Chi-square or the Fisher's exact test.

**RESULTS:** Sixty-four patients with systemic lupus erythematosus were autopsied from 1963 to 2003. There were 3 males and 61 females, with a mean age of 25.22 (range 13-55). The average duration of illness was 17 months at demise. Nephritis, hypertension and heart failure were present in 74.6%, 24%, and 33% respectively. There was no significant difference between the groups in terms of age and clinical incidence of hypertension or congestive heart failure. Cardiac Necropsy Results stratified according to duration of corticosteroid therapy are summarized in Table 1.

	Total	Steroid <1 mo	Steroid >1 mo	P value
Number of patients	64	40	24	
Age Range (years)	25.22	24.54	26.33	0.47
Libman-Sacks Endocarditis (%)	17.46	25.64	4.17	0.029
Pericardial Effusion (%)	35.93	47.5	16.67	0.013
Pericarditis (%)	34.92	45.00	20.83	0.05
Atherosclerosis (%)	11.11	7.69	16.67	0.271
Cardiomegaly (%)	47.61	52.50	41.67	0.401
Effusion Volume (cc)	120.217	129.737	75.00	0.4066
Myocarditis (%)	23.81	22.50	29.17	0.551

**CONCLUSION:** Our analysis of forty years of cardiac necropsy data among SLE Patients from our institution shows a statistically significant decrease in the incidence of Libman-Sack's endocarditis, pericarditis and pericardial effusion among patients who received corticosteroids for more than a month prior to demise. We found no statistically significant difference in myocarditis or atherosclerosis incidence on necropsy between the groups. There was also no significant difference in clinical incidence of hypertension and congestive heart failure between groups.

### **S59 Elderly-Onset Filipino Systemic Lupus Erythematosus Patients Seen at the Philippine General Hospital**

**Tommy Bangayan MD, Bernadette Heizel D. Manapat-Reyes MD, and Evelyn O. Salido MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Poster Presentation. 10<sup>th</sup> PRA Annual Convention. Bacolod. Jan 2003**

Systemic Lupus Erythematosus is a multi-system disease with a wide spectrum of clinical and laboratory manifestations. It mainly affects female of the reproductive age. Several studies have shown that lupus with onset beyond 50 years of age is unusual and often run a benign course. The female to male ratio is lower and that this group has different characteristic feature compared to younger-onset SLE.

**OBJECTIVE:** To describe the clinical manifestations, laboratory features and prognosis of Filipino patients with elderly-onset SLE.

**METHOD:** This is a descriptive, retrospective study reviewing all the records of patients diagnosed to have SLE since 1986 – 2002 at PGH. Patients age 50 years and above were included in the study. Demographic data, clinical manifestations and laboratory parameters were recorded. Mode of treatment and prognosis were also noted.

**RESULTS:** Fifteen patients (13 females and 2 males) with age range from 51 – 73 years were included in the study. All fulfilled the ACR classification criteria for the diagnosis of SLE. The clinical and laboratory features were compared to the younger-onset SLE. It was found that only the occurrence of thrombocytopenia is significantly increased among older-onset SLE. Malar rash and lupus nephritis occurred less frequently. Four patients received methylprednisolone pulse therapy and about half received a combination of steroids and immunosuppressants and/or anti-malarials. Three patients died while admitted and one was due to catastrophic antiphospholipid antibody syndrome.

**CONCLUSION:** The most distinctive features that characterized patients with older-onset SLE in this study were the lower female to male ratio of distribution and the presence of thrombocytopenia. Anemia is

the most common manifestation with high prevalence of hemolytic anemia. Malar rash and nephritis occur less frequently in the older-onset SLE. The survival rate for older-onset SLE and younger-onset SLE are 80% and 95%, respectively.

### **S60 Split Thickness Skin Graft of a Large Thigh Ulcer in a Patient with Systemic Sclerosis and Systemic Lupus Erythematosus Overlap Syndrome**

**Michael L. Tee, MD and Clemente M. Amante, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

**10<sup>th</sup> PRA Annual Convention. Manila, Jan 2003**

**SYNOPSIS:** This paper reports a reconstructive procedure on a 14in. x 6in. gangrenous skin ulcer using split thickness skin graft in a patient with overlap SLE and systemic sclerosis.

**CLINICAL PRESENTATION:** A 30 year-old Filipina with systemic lupus erythematosus and systemic sclerosis overlap syndrome developed a 14in. x 6in. gangrenous skin ulcer at the lateral aspect of the left thigh and right leg. Initial findings included an increase in the pigmentation and tightening of proximal and distal skin areas, anemia, lymphopenia, easy fatigue, history of arthritis, seizure and Raynaud's phenomenon. Discoid rash over the legs and vasculitis on the finger tips were noted on examination.

**LABORATORY WORK-UP:** Skin punch biopsy revealed inflammatory phase of morphea. Anti-nuclear antibody was +4 speckled at 1:160 titer. There was cardiomegaly on chest radiograph and a right axis deviation on 12L ECG. 2D echocardiogram revealed dilated right atrium and ventricle with pressure and volume overload. There was evidence of moderate pulmonary hypertension and mild tricuspid regurgitation. Mitral regurgitation was moderate. Left ventricular systolic function was normal. Pulmonary function test was normal. KCT and DRVVT were normal. Tissue culture grew *Proteus vulgaris*. Left femur radiograph showed cellulitis but not osteomyelitis.

**TREATMENT:** Antibiotics, calcium channel blockers and rapidly tapered high dose steroids were given. The patient underwent debridement of the 12 in x 6 in necrotic area and intramuscular abscess on the left lateral thigh. She was maintained on Prednisone 10mg and Diltiazem 30mg TID. Split-thickness skin graft using a scored sheet graft harvested from the right thigh was performed. Primary closure of the right leg wound was achieved using nylon3-0 suture.

**OUTCOME:** Four weeks post-procedure, there was note of good wound healing of both the donor site and the grafted wound.

**SIGNIFICANCE:** It is shown that split-thickness skin graft sourced from a sclerodermatous thigh can be transplanted to cover a large 14 in x 6 in sclerodermatous bed of a vasculitic ulcer. This is despite the previous intake of rapidly tapered high dose steroids.

**RECOMMENDATIONS.** Split-thickness autograft is a viable option for the coverage of large skin ulcers in patients with systemic sclerosis and SLE vasculitis.

### **S61 Peripheral Bone Mineral Density in Systemic Lupus Erythematosus: A Cross-sectional Study among Filipino Lupus Patients**

**Marichel L. Marcolino, MD, Joseph M. Antigua, MD**  
*Chong Hua Hospital, Cebu City*

**Poster Presentation. 9<sup>th</sup> PRA Annual Convention. Edsa Shangri la Hotel, Manila. Jan 2002**

**OBJECTIVE:** To determine the peripheral bone mineral density and the proportion of osteopenia and osteoporosis of patients with systemic lupus erythematosus (SLE).

**STUDY DESIGN:** Descriptive, Cross-sectional

**SETTING:** Rheumatology Clinic at Chong Hua Hospital Medical Arts Building (CHH-MAB), Cebu City.

**STUDY POPULATION:** 29 patients; 27 premenopausal women and 2 male patients with Systemic Lupus Erythematosus recruited from the Lupus Association of Cebu who were attending to a rheumatology clinic at Chong Hua Medical Arts Building.

**INTERVENTION:** Peripheral bone mineral density (pBMD) measurements, expressed in grams per square centimeter of the calcaneum were done in 29 Filipino patients with Systemic Lupus Erythematosus using the Lunar dual energy x-ray absorptiometry (DXA) bone densitometer (Peripheral Instantaneous X-ray Imager/PIXI™). Peripheral BMD's of patients on glucocorticoids therapy for more than three months (Steroid Group) were segregated from those who were not or on steroid for less than three months (Non-steroid Group).

**RESULTS:** The mean age of the study population was 29.38 years (SD 8.3), 93 percent of the patients were females and the mean body mass index was 21.02 kg/m<sup>2</sup> (SD 3.88). The mean peripheral bone mineral density utilizing the calcaneum was 0.44 g/cm<sup>2</sup> (SD 0.07).

Twenty patients (69 percent) were in the steroid group and only 9 patients (31 percent) in the non-steroid group. Seventy percent (70%) was on glucocorticoids for six years with fifty-five percent (55%) of patients receiving daily prednisone dose of 1-10 mg.

Fifty-five percent (55%) of patients had normal bone density, 45 percent had osteopenia and none had osteoporosis. Among the steroid group, 10 patients (50 percent) had normal pBMD, and 10 patients (50 percent) had osteopenia. For the non-steroid group, 6 patients (66 percent) had normal pBMD and 3 patients (33 percent) had osteopenia.

**CONCLUSION:** In this study, based on the obtained peripheral bone mineral density, majority of SLE patients had normal pBMD's and none had osteoporosis. However, in relation to their steroid use, the proportion of patient with osteopenia was higher in the steroid group than in the non-steroid group.

## **S62 Catastrophic Antiphospholipid Antibody Syndrome in an Elderly Male with Systemic Lupus Erythematosus: a Case Report**

**Clemente M. Amante, MD and Auxencio A. Lucero, Jr., MD**  
*Rheumatology Section, Department of Medicine UP-PGH, 2001*

**Poster Presentation. 9<sup>th</sup> PRA Annual Convention. Edsa Shangri la Hotel, Manila. Jan 2002**

We describe a 71-year-old Filipino male with SLE of 4 years duration who developed intractable thrombocytopenia and acute myocardial infarction. Work-ups revealed elevated CK-MB (140 u/L) and positive troponin I (>150 ng/ml), prolonged KCT (110 sec) and DRVVT (52 sec) and elevated anticardiolipin IgM (18.71 MPL units/ml, NV≤12.5 MPL units/ml) and IgG (23.76 GPL units/ml, NV≤15 GPL units/ml). Patient was diagnosed to have catastrophic antiphospholipid antibody syndrome (APS). Despite therapy with pulse methylprednisolone and pulse cyclophosphamide, patient's medical condition deteriorated and eventually expired due to bleeding secondary to an intractable thrombocytopenia. First coined by Asherson et al in 1992, catastrophic antiphospholipid antibody syndrome is a rare accelerated form of APS characterized by multi-organ thrombotic microangiopathy. Since its description, only 50 patients have been described in the literature mostly occurring in young adult females with primary APS. We are reporting the first case of a catastrophic APS in an elderly male patient with SLE. Catastrophic APS is a potentially life-threatening condition. At present, no therapeutic regimen has proven to be consistently successful hence prognosis has remained poor. The aim of this case report is to increase clinical awareness to the syndrome, which in turn can spur further interest into understanding the pathophysiology of the disease and therefore improve on present management. It is therefore recommended that further research be done in further elucidating its mechanism of action and in improving the therapeutic management.

## **S63 Systemic Lupus Erythematosus in Filipino Males: A Case Series**

**Ivy Catherine T. Rivera, Clemente M. Amante, MD, Evelyn O. Salido MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Phil. J of Internal Medicine, 38(6):319-327. Nov-Dec 2000**

**OBJECTIVE:** This paper aims to describe the clinical, laboratory features, and of course of male lupus patients seen at the Rheumatology Section of Philippine General Hospital and to compare these features with foreign studies on male patients.

**METHOD:** Charts of all male patients diagnosed to have systemic erythematosus (SLE) who fulfilled four or more of the 1982 American College of Rheumatology (ACR) criteria, seen and examined by the Rheumatology service of the Philippine General Hospital from 1991-1999 were reviewed.

**RESULTS:** Twelve male patients are included in this series. The mean age at diagnosis is  $29.5 \pm 9$  years. The mean interval from the onset of symptoms to the diagnosis is  $22.6 \text{ months} \pm 27.7 \text{ months}$ . Fever, skin rashes, and leg edema are the most common initial complaints. Common clinical features in males are malar rash, renal involvement, oral ulcers, and photosensitivity. Abnormal laboratory findings are elevated erythrocyte sedimentation rate, positive ANA, anemia, and proteinuria. There are more number of Filipino male lupus with oral ulcers, photosensitivity, elevated ESR, and anemia compared to foreign male lupus.

#### **S64 Cardiac Tamponade as Presenting Manifestation of Systemic Lupus Erythematosus: Case Report**

**Bernadette Heizel D. Reyes, MD and Evelyn O. Salido, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

1. **APLAR Journal of Rheumatology (3)1. May 1999**
2. **Phil J of Internal Medicine. 38 (6): 335-338**
3. **2<sup>nd</sup> place Case Report Category. Department of Medicine, UP-PGH Research Forum. 1997**
4. **Paper Presentation. 6<sup>th</sup> PRA Annual Convention. January 1999**

We describe the case of a 32 year old Filipino female with rare occurrence of cardiac tamponade as her initial manifestation of Systemic Lupus Erythematosus (SLE). A review of English literature disclosed 11 other cases of SLE presenting initially with echocardiographically confirmed cases of cardiac tamponade. All of these patients were treated with high dose steroids and pericardiocentesis or pericardiostomy, similar to our patient. Early recognition of this serious condition among lupus patients may be life-saving.

#### **S65 Systemic Lupus Erythematosus and Pregnancy: the Philippine General Hospital Experience**

**Ma. Luz Vicenta V. Guanzon, MD, Evelyn Osio-Salido, MD, Corazon R. Valdez, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

A review of 25 cases of Systemic Lupus Erythematosus (SLE) with 42 disease related pregnancies accruing from 1971-1994 was done. The population was young with a mean age of 29 years at the onset of pregnancy. Almost 50% had the pregnancy within the first year of diagnosis. Onset of SLE during pregnancy was seen in 36% of cases. Musculoskeletal, cutaneous and renal symptoms were the most common manifestations before and during pregnancy. Disease activity remained uncontrolled or worsened in 74% of pregnancies marked by clinical activity at the onset. Fetal loss reached 52%, with 60% of livebirths being small for gestational age. Neurologic symptoms and nephritis and concomitant hypertension were found to increase the risk of fetal mortality. But the mere presence of disease activity at any time increases this risk the most.

#### **S66 Can C Reactive Protein Predict Systemic Lupus Erythematosus Activity?**

**Perry P. Tan, MD, Evelyn O. Salido, MD and Josephine A Lim, MD**  
*Rheumatology Section, Department of Medicine UP-PGH, 1993*

The use of C reactive protein (CRP) in predicting the presence of disease activity versus that of infection was tested in systemic lupus erythematosus patients at the Philippine General Hospital. Thirty patients were evaluated with a mean age of 34.5 years. The SLE Activity measure (SLAM) scoring system was used to predict the presence of disease activity while the clinical data with bacteriologic studies were used to prove the presence of an infection. The CRP was not found to be a useful test in differentiating SLE activity from infection.

**S67 The Spectrum of Cardiac Manifestation in Systemic Lupus Erythematosus by M-mode, Two Dimensional and Doppler Echocardiography: A Prospective Analysis with Clinical Correlation**

**Ofelia M. Samar-Sy, M.D, Evelyn Osio-Salido, MD, Wilfred G. Dee, M.D., Beaver R. Tamesis, M.D., Antonio L. Dans, M.D., Leonila Dans, M.D.**  
*Rheumatology Section, Department of Medicine UP-PGH, 1993*

**OBJECTIVE:** To determine the prevalence of cardiac abnormalities by M-mode, 2-dimensional and Doppler echocardiography among Filipino patients diagnosed to have systemic lupus erythematosus (SLE) and identify significant clinical-echocardiographic correlations.

**DESIGN:** prospective cross-sectional survey

**PATIENTS/METHODS:** 50 consecutive diagnosed SLE patients underwent Doppler-echocardiograph. Cardiac abnormalities and significant clinical correlation with pertinent clinical parameters were identified.

**RESULTS:** A total of 21 different abnormal Doppler or echocardiographic abnormalities were identified in 80% of patients. Myocardial involvement was the most common (74%) finding. Hypertension, high dose steroid intake, activity, and nephritis correlated significantly with these cardiac abnormalities.

**CONCLUSION:** Doppler-echocardiography is a simple and useful non-invasive diagnostic tool in systemic lupus erythematosus which can identify cardiac abnormalities in as high as 80% of cases. awareness of the identified clinical correlates of cardiac abnormalities is encourages.

**S68 Clinical Characteristics and Disease Outcomes in 192 Systemic Lupus Erythematosus Patients at the Philippine General Hospital: A Review**

**Evelyn Osio-Salido, Cristina Larracas, Clemente M. Amante, Leonila F. Dans, Ester G. Penserga and Josephine A. Lim**  
*Rheumatology Section, Department of Medicine UP-PGH, 1993*

**Objective:** To describe the clinical characteristics, morbidity and mortality patterns among 192 systemic lupus erythematosus (SLE) patients at the Philippine General Hospital from 1974 to 1993.

**Methods:** The charts of patients who fulfilled the 1987 American College of Rheumatology Criteria for SLE were reviewed.

**Results:** The subjects were mostly young females (95%) with a mean age of onset of  $27.8 \pm 30$  years. The duration of follow-up was on the average 22 to 23 months. Arthritis and skin rash were the most common initial complaints. ANA and nephritis were the most common prevalent disease manifestations. Morbidity was attributed to refractory disease (nephritis, vasculitis, cerebritis), infection, hypertension, or treatment related complication, Survival rates for 1, 2, and 5 years were 95, 88 and 64%, respectively, Azotemia and hypertension were found to be related to mortality.

**S69 Hypertension in Systemic Lupus Erythematosus at UP-PGH, 1980-1985: A Retrospective Analysis**

**Joseph Antigua, M.D., Ma. Pilar Mina, M.D. and Clemente Amante, M.D., FPCP**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Phil J of Internal Medicine Jan-Feb 1986; 24:13-16.**

A 5-year retrospective analysis of 86 patients with systemic lupus erythematosus (SLE) seen at the UP-PGH Medical Center was undertaken to determine the occurrence of hypertension in Filipino SLE patients and its relationship to renal involvement and steroid therapy, and, to study the outcome and prognosis of such patients. Fifty-six patients, 2 males (4%) and 54 females (96%) were evaluated. Seventeen patients (30%) had hypertension and clinical evidence of renal involvement was significantly greater among them. Patients with both hypertension and renal disease had a longer average duration of steroid intake as compared to the non-hypertensive group. Hypertension seemed to develop after initiation of steroid therapy often coinciding with clinical evidence of kidney disease. Furthermore, hypertension did not seem to alter the prognosis of SLE patients with renal involvement and who underwent steroid therapy. More studies are needed to verify the results of the above relationship and to define the dose and duration of steroid therapy that would affect the prognosis.

### **S70 Juvenile Systemic Lupus Erythematosus: A Review of 31 Cases in Filipino Children**

**Maria Belen C. Agcaoili, M.D and Clemente M. Amante, M.D., FPCP**  
*Rheumatology Section, Department of Medicine UP-PGH*

**Phil J. Internal Medicine Jan-Feb 1986; 24:17-24.**

Presented in this study were 31 cases of SLE in Filipino children according to the criteria set by the ARA, 1982. Comparison of the local study with studies of SLE in children in the foreign setting showed not much difference in the physical and laboratory findings for the disease. Variations, however, were noted in the initial diagnoses given and in the preponderance of females in the prepubertal period versus an equal ratio of sexes in foreign studies. Also, just as what was concluded by the study of Caeiro et. al., the clinical pattern of SLE in Filipino children was no different from the general pattern of the disease in adults.

Thus, the most common presenting manifestations of lupus in children in the local setting are hereby presented, as well as the disease entities most commonly entertained by the clinician because of similarities in presentation with lupus. Presented, too, are the most common physical and laboratory findings noted among this representative group of Filipino children.

Having now an index of how this disease would present in our setting would at least make us aware of the strong possibility of SLE in a child who presents with those signs and symptoms.

A strong working knowledge coupled with an increased awareness of the disease in all its diversities and complexities could certainly guide the conscientious and vigilant clinician towards an early diagnosis and prompt management of SLE.

### **S71 SLE: Disease Complications and Therapeutic Implications**

**Clemente M. Amante, M.D.FPCP, FPRA and Eusebio Garcia, MD**  
*Rheumatology Section, Department of Medicine UP-PGH*

The data obtained from this study on 75 patients followed up at the Arthritis Clinic of UP-PGH and another hospital was similar to previous studies. The problems that were observed were either because of the disease itself and its complications or due to the treatment that was instituted. Because of the observed improvement in mortality rate, one has to contend with the morbidity as well as mortality that may accompany aggressive therapy. The impact of health care delivery and the socioeconomic status of our patient need to be considered in the overall management of our lupus patients.

**S72 Treatment of Systemic Lupus Erythematosus: Experience from Two University Hospitals in Manila, Philippines**

**Ester G. Penserga,MD, Sandra V. Navarra,MD, Evelyn O. Salido, MD**  
*University of the Philippines-Philippine General Hospital & University of Sto Tomas Hospital*

**4<sup>th</sup> ASEAN Congress of Rheumatology proceedings 31 October – 4 Nov 1993 Singapore.**

The treatment of systemic lupus erythematosus (SLE) has consistently been challenge up to this day. The University of the Philippines- Philippine General Hospital (UP-PGH). Out-patient Connective Tissue Disease Clinic sees an average of 20 SLE cases per month, 5 of which are new cases. The University of Sto. Tomas (UST) Lupus Study Group has collected 320 cases in 10 years. Corticosteroid, antimalarials and nonsteroidal anti-inflammatory agents were the main treatment options prior to 1988. Since then, immunosuppressive and cytotoxic agents came into use. High dose steroid was found useful for nephritis, neurologic, hematologic and severe dermatologic manifestations. Arthritis was primarily managed with NSAIDS, alone or in combination with low dose steroid and also with antimalarials.

By 1988, methylprednisolone pulse therapy and pulse IV cyclophosphamide became popular for nephritis, neurologic, hematologic and severe systemic flares of disease. MPPT was found to be least effective for retinal and peripheral vasculitis. Complications were aplenty, mostly seen in patients on prolonged high dose steroid. Infection was the leading complication, ranging from bacterial, myobacterial (3 renal TB cases), and fungal.

Hemorrhagic cystitis was noted in 1 case on IV cyclophosphamide, while one case of lymphoma developed in a case on prolonged oral cyclophosphamide. Of the total 466 cases reviewed, there were 66 deaths or mortality rate of 14 percent.

**S73 Immune therapy of lupus: what is on the horizon?**

Sandra V. Navarra,MD,

*Nephrology Dialysis Transplantation 2006 21(3):579-581.*

**S74 An Overview of Clinical Manifestations and Survival of Systemic Lupus Erythematosus Patients in Asia.**

Sandra V. Navarra,MD, Jacqueline O. King, MD

*APLAR Journal of Rheumatology 2006; 9:336-341.*

**S75 Clinical Problem Solving: Persistent Knee Arthritis and Prolonged Fever in a Lupus Patient.**

Emmanuel C. Perez, MD, Sandra V. Navarra,MD

*APLAR Journal of Rheumatology 2006; 9:342-346.*

**S76 Risk factors for stroke among Filipino patients with systemic lupus erythematosus.**

Reyes CM, MD, Navarra SV, MD

*APLAR Journal of Rheumatology 8:19-22, 2005.*

**S77 Infections among Filipino patients with systemic lupus erythematosus.**

Reyes CM, MD, Navarra SV.

*Phil J Internal Med 43:123-127, May – June 2005.*

**S78 Clinical presentation and disease course of pulmonary hypertension among Filipinos with systemic lupus erythematosus.**

**Lim CE,MD, Navarra SV, MD, Tan-Ong MY., MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. *Phil J Int Med* 40:140-141, 2002.
2. *Poster Presentation. Sixth International Lupus Conference in Barcelona, Spain, March 2001.*
3. *Poster Presentation. 8<sup>th</sup> PRA Annual Convention, Baguio, Jan. 2001*

**OBJECTIVE:** To review the clinical presentation of pulmonary hypertension (PHT) in patients with systemic lupus erythematosus (SLE)

**DESIGN:** Descriptive study using case record reviews.

**SETTING:** University of Santo Tomas Hospital (USTH), tertiary private hospital, Manila

**METHODS:** Review of case records of 856 Filipinos with SLE from the Rheumatology Clinic USTH from 1992 to 2001. The diagnosis of PHT was made when pulmonary artery systolic pressure (aPAP) at rest was more than 30mm Hg. as measured by two-dimensional echocardiogram (2D-Echo) with Doppler studies, Clinical features, demographic characteristics, pharmacologic interventions and clinical outcome of those with PHT were determined.

**RESULTS:** There were 42 lupus patients with pulmonary hypertension identified and included in the analysis, 39 (92.8%) of whom were females and 3 (7.2%) males. The mean age at diagnosis of SLE was 28.8 (range: 9-51) years; the mean age at diagnosis of PHT was 32 (range: 12-55) years, with mean sPAP of 41 (range: 32-98) mmHg.

Among the 42 patients, 31 (73.8%) had Raynaud's phenomenon, 5 (11.9%) had parenchymal disease, 4 (9.5%) had concomitant antiphospholipid syndrome and 12 (29.3%) had systemic arterial hypertension. The five year survival rate was 66.7%. Mortality in 14 of 42 (33%) patients was largely attributable to pulmonary hypertension.

**CONCLUSION:** Raynaud's phenomenon was a prominent feature in this group of lupus patients with PHT. Despite the striking morbidity and mortality depicted in this cohort, the clinical course remains widely variable in SLE patients with PHT.

**S79** Depression among Filipino patients with systemic lupus erythematosus.

Charito F. Cruz-Bermudez, MD, Sandra V. Navarra, MD, Tito P. Torralba, MD

*Phil J Internal Med* May-Jun 2001, 39:129-132.

**S80** Echocardiographic findings in 24 newly diagnosed Filipino patients with SLE.

Perez EC, MD, AFrancisco, MD, STVNavarra, MD, EVCaguioa, MD, TPTorralba, MD,

*Lupus* 10: S21, 2001. and *Phil J Int Med* 40:211-218, 2002.

**S81** Clinical Presentation and Disease Course of Pulmonary Hypertension among 31 Filipinos with SLE.

Navarra SV, MD, CELim, MD, MTong, MD, SCSaavedra, MD

*Lupus* 10: S21, 2001 .

**S82** Renal microtophi in a patient with lupus nephritis and tophaceous gout.

Navarra STV, MD, Saavedra SC, MD, Cayco AV., MD

*J Clin Rheumatol* 7:268-272, 2001.

**S83** Avascular necrosis among patients with systemic lupus erythematosus.

Llamado LJQ, MD, Navarra STGV, MD, Torralba TP, MD

*Presented during the 5<sup>th</sup> RAA Congress and 3<sup>rd</sup> APLAR Symposium on Rheumatic Disease Therapy, Manila, January 18-22, 1998, p.72.*

**S84** A Case Series on Cryptococcal Infection at the Santo Tomas University Hospital, Philippines.

Juan Ismael G. Sumagaysay, MD, Emmanuel Edwin R. Dy, MD, Sandra Teresa G. Victorio-Navarra, MD, Angeles L. Tan-Alora, MD

*Phil J Internal Medicine*, 36: 189-193, Sept-October 1998.

Retrospective studies of ten cases of cryptococcosis (age range: 12-71 years) were reviewed.

**S85** Comparison of relative frequency of systemic lupus erythematosus (SLE) to rheumatoid arthritis (RA) in Kuwaitis, Indians and Filipinos: Hospital-based study.

Malaviya AN, MD, Umamahswaran I,MD, Victorio-Navarra STG,MD, Perez EC,MD, Kumar A, MD, Sharma PN,MD, Johny KV, MD

*APLAR Journal of Rheumatology 2: 2-9, May 1998.*

**S86** A Case report on pneumothorax in SLE.

Africa-Purino FM, Moral PG, Navarra STGV.

*28<sup>th</sup> Annual Convention of the Philippine College of Physicians.*

**S87** Systemic lupus erythematosus among Filipinos: An overview.

Victorio-Navarra STG., MD

*Proceedings of the 19<sup>th</sup> ILAR (International League of Associations for Rheumatology) Congress, June 8-13, 1997, Singapore.*

The profile of Filipino patients with SLE appears similar to those elsewhere, particularly Orientals. There is relatively lower occurrence (or recognition) of male lupus and the contribution of infection in the morbidity and mortality of the disease. In deed, no single race nor ethic group can lay exclusive claim to a definite set of clinical manifestation of SLE.

**S88** Causes of death among a group of Filipino patients with systemic lupus erythematosus

De Lara AC, MD, Victorio-Navarra STG.MD

*19<sup>th</sup> ILAR Congress of Rheumatology. June 9, 1997*

**S89** Tuberculosis among Filipino patients with systemic lupus erythematosus.

Victorio-Navarra ST, MD, Emmanuel Edwin R. Dy, MD Caroline G. Arroyo, MD and Tito P. Torralba, MD

**University of Santo Tomas, Philippines.**

*Semin Arthritis Rheum 26:626-634, Dec. 1996.*

The contributory role of tuberculosis infection in the morbidity and mortality of patients with SLE must be emphasized, especially in areas endemic for TB.

**S90** Thyroid Microsomal antibodies among Filipino Patients with Systemic Lupus Erythematosus.

Pabicon OH, MD, Victorio-Navarra STG,MD, Torralba TP.MD

*Phil J Int Med 34:19-22, Jan-Feb 1996.*

SLE patients with concomitant thyroid dysfunction in which immunosuppressives may not be effective may require specific drugs directed to the thyroid abnormality. Determinations of specific thyroid antibodies may be useful in ANA-negative patients with indistinguishable clinical features of either a thyroid disorder or SLE.

**S91** C-reactive protein levels and erythrocyte sedimentation rates in febrile systemic lupus erythematosus patients: Infection vs. disease activity

Pablico BE,MD, Victorio-Navarra STG,MD, Torralba TP, MD

*Second Annual PRA Meeting, Cebu City, Jan 20-21, 1995.*

**S92** Polyneuropathy, organomegaly, endocrinopathy, Monoclonal M protein and Skin changes (POEMS) Syndrome in a Filipino patient with systemic lupus erythematosus.

Gallardo LT, MD, Ramitterre EB,MD, Victorio-Navarra STG,MD, Gomez MHS,MD, Torres JF, MD

*Phil J Int Med 33:237-242, Nov.Dec. 1995*

**S93** Clinical and serologic features of early systemic lupus erythematosus in Filipinos compared to Hispanic Americans.  
Masisado C, Stimmler M, MD, Torralba TP,MD, Navarra STGV,MD, Ramitterre E,MD, Jin A,MD, Quismorio F, MD  
*Arthritis Rheum 112 (S), 1995*

**S94** Clinical Presentation of systemic lupus erythematosus among Filipino patients at the Santo Tomas University Hospital.  
Dy EER, MD, Victorio Navarra STG,MD, Torralba TP,MD  
*Phil J Int Med S32: 6-12, 1994.*

**S95** Methylprednisolone Pulse Therapy in Systemic Lupus Erythematosus.  
Victorio Navarra STG, MD, Lapid Roasa EA,MD, Torralba TP., MD  
*Phil J Int Med S32: 61-66, 1994.*

**S96** Systemic lupus erythematosus – related symptoms and antinuclear antibody positivity in a rural Filipino community.  
Sia IG, MD, Malaviya AN,MD, Victorio Navarra STG,MD, Torralba TP., MD  
*Phil J Int Med S32:1-5, 1994.*

**S97** Childhood-onset systemic lupus erythematosus at the University of Santo Tomas Hospital. UST, Philippines.  
Navarra SV, MD, Dennis Ngo,MD, Tito P. Torralba, MD  
*Phil J Internal Medicine, 32: 38-44, Sept- Oct. 1994 Supplement.*

Fever and anemia were the most prominent clinical and laboratory features, respectively. Compared with a group of adult patients, the childhood group had significantly more frequent occurrence of fever, oral ulcers, and neuropsychiatric features; and less thrombocytopenia, albuminuria and cylindriuria.

**S98** Male systemic lupus erythematosus at the Santo Tomas University Hospital.  
GF Mukta Prawata, MD, Sandra V. Navarra,MD, Tito P. Torralba., MD  
*Phil J. Internal Medicine, 32: 33-37, Sept-Oct 1994. Supplement.*

The mean age of onset was  $27.37 \pm 11.45$  years. The main clinical features were malar rash, renal disorder, alopecia, arthritis, and neuropsychiatric involvement. Infection was a major contributory cause of death.

**S99** Pregnancy in systemic lupus erythematosus in a group of Filipino women.  
Victorio Navarra STG, MD, Sia IG,MD, Torralba TP., MD  
*Phil J Int Med S32:51-60, 1994.*

**S100** Neonatal Lupus Erythematosus Presenting as Congenital Complete Heart Block. Report of a case and review of literature.  
Buenviaje MB, MD, Victorio-Navarra STG,MD, CoHuy I., MD  
*Phil J Int Med, 1992. STJM 42:110-114, 1993.*

**S101** Clinical and laboratory features of systemic lupus erythematosus in a Filipino group of patients.  
Torralba TP,MD, Victorio STG,MD, Buenviaje MB., MD  
*Phil J Int Med 26:199-207, 1988*

**S102** Systemic lupus erythematosus among Filipinos: Disease manifestations, clinico-serologic associations and factors related to survival.  
Victorio STG,MD, Torralba TP., MD

*Sixth SEAPAL Congress of Rheumatology, Tokyo, September 1988.*

**S103** Assessment of the diagnostic value of the ANA, anti-DNA and liberally defined arthritis in systemic lupus erythematosus.

Victorio STG,MD, Javier, SP,MD, Torralba TP.MD

*Phil J Int Med 26: 233-240, 1988.*

**S104 Survival Analysis of Recurrent Infections among Filipino Systemic Lupus Erythematosus Patients**

**Julie Li-Yu MD and Chris Russel Reyes MSStat**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

1. **Poster Presentation – 14<sup>th</sup> PRA Annual Convention, Cagayan de Oro, January 2007**
2. **Poster Presentation. 8<sup>th</sup> International Congress on SLE. Shanghai, China, May 2007**
3. **Lupus International Journal May 2007; 16 (Abstract Supplement PO296) : 191**

**AIM:** This study aims to determine the incidence, median time to first and recurrent infections as well as factors associated with infections among a cohort of Filipino systemic lupus erythematosus patients within 5 years of diagnosis.

**METHODOLOGY:** Retrospective cohort study where medical records of multiple infections among lupus patients seen from January 1, 2001 to June 31, 2006 were gathered and reviewed. Association of disease duration, corticosteroid use, SLE disease activity, as well as socioeconomic status to hazard of recurrent infections using the Wei-Lin-Weissfeld (WLW) hazard model for multiple events was determined.

**RESULT:** Medical records from 185 patients were retrieved. The mean age at disease onset was  $30.399 \pm 12.96$  years, mean disease duration of  $18.8 \pm 15.7$  years, and mean corticosteroid dose 2 weeks prior to onset of infection was  $18.34 \pm 16.32$  mgs per day. Follow up period was at most 5 ½ years. There was no report of any episode of infection in 58 (31.35%) patients. Of those who had infections, 60 (47.24%) patients had single infection while 67 (52.76%) patients had at least 2 episodes of infections. The overall incidence rates were 0.5856, 0.1972, 0.0753, 0.0471 per 100 person-years for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> infections respectively; median time to infections were 8.5, 13, 18, and 23 months for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> infections respectively. WLW method of univariate analysis revealed that age on diagnosis and low socioeconomic strata did not significantly contribute to increase in hazard, in contrast to shorter disease duration which put patients at higher hazards for 1<sup>st</sup> and repeated infections. Further multivariate analysis modeling showed that use of corticosteroids ( $\geq 7.5$  mg/day) as well as short disease course of  $< 1$  year was significantly associated with hazard of repeated infections.

**CONCLUSION:** With the aim of lessening the morbidity that surrounds SLE patients within first 5 years of disease onset, it is strongly suggested that clinicians should aggressively contain the underlying autoimmune disorder with high dose corticosteroids in the shortest time period in order to lessen the risk of contracting multiple infections.

**Research Grant:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

**S105 Retinopathy among Filipino Patients with Systemic Lupus Erythematosus (SLE)**

**Maria Cristina Tolin, MD, Sandra Navarra, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH, 2008*

**OBJECTIVE:** To present the clinical manifestations of Filipino SLE patients with retinopathy seen at a tertiary care hospital.

**DESIGN:** Descriptive-retrospective study.

**SETTING:** Rheumatology Clinics of the University of Santo Tomas Hospital.

**PATIENTS/PARTICIPANTS:** Review of medical records of patients included in the SLE database (2000 to 2007) of the University of Santo Tomas Section of Rheumatology, and searched for patients with

retinopathy, diagnosed by funduscopy and/or fluorescein angiography. These patients comprised the cohort included in this study.

**MAIN OUTCOME MEASURES:** Associated factors found to be contributory to the development of retinopathy among SLE patients were enumerated and analyzed.

**RESULTS:** Of the 535 patients in the SLE database, nine (8 females) were diagnosed with retinopathy. The average age was 31 years (range 16 to 46). Three of these patients had eye symptoms as one of the presenting manifestations of SLE, with a mean SLE disease duration of 2.2 years (range 0 to 8 years) to occurrence of retinopathy. Associated manifestations were anti-phospholipid syndrome in 4 patients, nephritis in 3, Raynaud's in 3, and other vasculitis in 4. Treatment modalities included high dose steroids, aspirin, anti-coagulation and laser treatment. Response to therapy was noted to be optic atrophy & visual acuity reduced to hand movements in 1 patient, partial resolution of retinal exudates in 4 patients, visual acuity of 20/200 in 2 patients and return to normal or near-normal vision with complete resolution of exudates & edema in 2 patients.

**CONCLUSION:** Retinopathy – though an uncommon manifestation of SLE – is an important cause of morbidity with its serious sight-threatening complications. It is further important to identify the risk factors associated with this complication, in order to arrest the progression to irreversible blindness.

**Funding:** Lupus Inspired Advocacy (LUISA) Project of the Rheumatology Educational Trust Foundation, Inc.

### **106 Clinical Outcome of Kidney Transplant Patients Secondary to Lupus Nephritis at NKTi from 2000 to 2005**

**Lava, Ana Lea V, M.D., Gatlabayan-Del Rosario, Adora M.D., Ninalga, Hazel Daphne M.D.**  
*National Kidney and Transplant Institute, East Avenue, Quezon, City*

**OBJECTIVES:** The study aims to describe the renal graft outcome and Lupus outcomes in Lupus Nephritis patients post Kidney transplant. Specifically it sought to: (1). to determine the 1 year and 2 years graft survival (2) to describe demographic profile of patients with LN who underwent Kidney transplant (3) to determine graft dysfunction incidence and its causes (4) to describe the response to treatment of graft dysfunction

**STUDY DESIGN:** Case series review

**SETTING:** National Kidney and Transplant Institute, East Avenue, Quezon City

**POPULATION:** All adult Lupus Nephritis patients who underwent Kidney Transplant at NKTi from January 2000 to December 2005. The clinical course was followed up to the present time.

**RESULTS:** There were total of eight patients included in the study.

Of these eight patients, six developed Acute rejection on the 1st year post Transplant, which are all biopsy proven. All of them responds well to Methylprednisolone rescue treatment. Two out of six patients with graft dysfunction subsequently developed graft loss. Both of them belongs to the older age group. There was only one patient who had Recurrent LN reported as WHO Class IV, global Two patients had no episode of graft dysfunction all throughout the observation period. Majority of the patients were female and belongs to younger age group. Most of the donor kidneys likewise came from the younger age group.

**CONCLUSIONS:** There was note of high frequency of graft dysfunction, specifically Acute Rejection during the 1<sup>st</sup> year post transplant All of these patients had good response with Rescue treatment of Methylprednisolone. Two patients who developed subsequent graft loss belongs to the older age group associated with other co morbidities. Majority of the Recipients for Renal transplantation were Female and younger. In majority of the patients there seems to be quiescence of Lupus activity post transplant.

**KEYWORDS:** Lupus Nephritis, Kidney Transplant, Graft dysfunction

### **107 Posterior Reversible Encephalopathy Syndrome (PRES) in a Filipino Patient with Systemic Lupus Erythematosus (SLE)**

**Razel Siron-Gonzales, MD, Harold Michael Gomez, MD**  
*Department of Medicine, Angeles University Foundation Medical Center, Angeles City, Philippines*

**OBJECTIVES:** To present a case of posterior reversible encephalopathy seen in a twenty six year old female recently diagnosed with SLE.

**INTRODUCTION:** Posterior reversible encephalopathy syndrome is a recently described diagnosis of a condition presenting with identifiable clinical and radiologic signs particularly those seen with a magnetic resonance imaging. It is quite rare among patients with SLE who presents with active disease.

**CASE:** ID, a 26 year old female presented with an eight month history of arthralgia, photosensitivity, myalgia, low grade fever, easy fatigability, high ESR, nephritis and a positive anti-nuclear antibody (ANA) test. She was given high dose steroids and hydroxychloroquine. However, she developed severe headache and seizure after four days of treatment and was admitted. At the emergency room, active seizure was noted with an elevated blood pressure. Further work up showed the presence of active nephritis, moderate to severe pericardial effusion, low C3, and cranial CT-scan showing symmetric bilateral hypodensities on the parieto-occipital lobe with probable hemorrhagic conversion of the left occipital lobe. She was started on methylprednisolone pulse therapy for three days with no new seizure attacks. however on the ninth hospital day she developed severe headache, bilateral visual loss and right hemiplegia. Repeat CT-scan showed no new lesions. A diagnosis of PRES was given. Cyclophosphamide pulse therapy was started and there was noted gradual improvement in symptoms. She was discharged and on follow up after 3 weeks showed a return of full visual function with improved muscle strength on her right upper extremity.

**CONCLUSION:** Posterior reversible encephalopathy syndrome is a rare and potentially reversible condition that is seen in patients with SLE with active disease. It is often aggravated by aggressive immunosuppression to control disease activity. Rapid diagnosis of this condition with adequate supportive measures improves patient survival.

### **108 Clinical Experience with Rituximab in Filipino Patients with Systemic Lupus Erythematosus Refractory to Prior Therapies**

**Sandra V. Navarra,MD, Karina D. Torralba,MD, Pauline Jea Vargas,MD, Harold Michael Gomez, MD**

*Section of Rheumatology, Clinical Immunology and Osteoporosis, Department of Medicine USTH*

**BACKGROUND AND PURPOSE.** Systemic lupus erythematosus (SLE) is an autoimmune disease with a myriad of clinical manifestations and variable disease course. Despite recent advances, therapeutic options remain sub-optimal. A better understanding of the disease pathogenesis has led to the development of targeted biologic therapies like rituximab, which are more potent and less toxic than conventional immunosuppressive drugs. We describe our clinical experience with rituximab in a cohort of Filipino patients with SLE.

**METHODS.** This retrospective case series included patients seen at the Rheumatology Clinics of the University of Santo Tomas Hospital (Manila, Philippines) who had received rituximab for SLE indications, which were refractory to standard-of-care therapies. After obtaining informed consent, each patient received an infusion of rituximab 500 mg and cyclophosphamide 500 mg; a second infusion of both drugs was administered after 2 weeks. Pre-medications included methylprednisolone 125 mg intravenously (IV) and paracetamol prior to each infusion. The indications for rituximab, pre-and post- (within 3 months) SLE Disease Activity Index (SLEDAI) scores, physician's assessment of response to therapy, laboratory parameters and adverse events were described.

**RESULTS.** There were 13 patients (all females) who had received rituximab for various SLE indications between September 2004 and October 2007. The mean age was 33.8 years (range 16 to 50), with an average disease duration of 7.54 years (range 3 to 26). The indications for rituximab therapy included renal in 8 (61.5%), refractory thrombocytopenia in 2 (15.4%), and 1 patient (7.7%) each with autoimmune hemolytic anemia (AIHA) plus anti-phospholipid syndrome (APS), demyelinating syndrome, and interstitial lung disease (ILD) plus arthritis. Mean SLEDAI scores decreased from 12.7 (range 4 to 20) at baseline, to 5.8 (range 0 to 12) a month after rituximab infusion. Clinical improvement was noted in 8 patients (5 with active nephritis, 1 each with AIHA plus APS, demyelinating syndrome, and ILD plus arthritis), there was no change in 2 patients (1 each with WHO Class 4 and Class 5 nephritis), and 1 patient with at SLE disease of at least 10 years duration progressed to end-stage renal disease requiring dialysis. Three patients who improved with the initial course of rituximab, were re-treated 8 to 16 months later for disease recurrence (nephritis, AIHA, ILD); all 3 showed similar favorable response to therapy.

There was one infusion-related adverse event – pruritic rashes – which resolved with diphenhydramine and decrease in the infusion rate. Another patient developed typhoid fever 5 days after the first infusion which completely resolved with antibiotics, but delayed the second infusion by a week. Two patients died of sepsis (*Salmonella* and *Pseudomonas* sp.); these were also on high dose combination immunosuppressive therapy for severe SLE flare.

**CONCLUSIONS.** Overall, there was a favorable response to rituximab in approximately two-thirds of SLE patients in this cohort, who were refractory to prior therapies. The possible factors or reasons for a lack of response in some patients were SLE disease of more than 10 years duration, and chronic kidney disease. Mild infusion-related adverse event and manageable infection (typhoid fever) was reported in 1 patient each; 2 deaths due to sepsis were also attributable to high-dose immunosuppressive drugs. Our experience reinforces the benefits of B-cell directed therapy with rituximab in selected SLE patients refractory to prior therapies, particularly those with active disease. On the other hand, patients with chronic (irreversible) kidney disease are less likely to respond to this form of therapy. Furthermore, utmost precaution must be exercised to exclude active infection among these patients, particularly those who are also on high dose corticosteroids and other immunosuppressives.