

**Objectives:** To investigate the effect of empathy nursing on the life quality of patients with Systemic Lupus Erythematosus (SLE).

**Methods:** 120 hospitalized patients with SLE admitted from January 2014 to December 2016 were divided into the control group and the experimental group for 60 people in each randomly. The control group was given routine care and the experimental group was given additional empathy care for 6 months. The World Health Organization Quality of Life (WHOQOL-BREF) Chinese version was evaluated on the 2nd day of hospitalization and 6 months after discharge respectively.

**Results:** Before intervention, the life quality of the two groups was poor. The scores of the control group and the experimental group in each field had no statistic difference (44.13±16.72 vs 44.08±17.33 in physiology, 51.13±14.38 vs 52.01±13.87 in psychology, 58.12±15.33 vs 56.71±8.12 in social relation, 54.93±13.2 vs 55.33±11.78 in environment and 52.52±15.6 vs 52.03±13.44 overall), ( $P > 0.05$ ). After the intervention, the scores of the WHOQOL-BREF scale in the two groups were improved to different extents ( $P < 0.05$ ) (59.33±13.76 vs 66.77±16.21 in physiology, 57.43±7.88 vs 64.55±11.76 in psychology, 65.22±13.34 vs 72.11±8.12 in social relation and the overall scores were 59.95±14.32 vs 67.89±6.42). The scores of the four dimensions in physiology, psychology, social relations and environment were significantly different from those before the intervention ( $P < 0.05$ ). The improvement of the scores in physiology, psychology, social relations in the experimental group was more obvious than the control group ( $P < 0.05$ ).

**Conclusions:** Empathy nursing can obviously improve the life quality of SLE patients, and it is worthy to be popularized.

**References:**

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**AB0546 CLINICOPATHOLOGICAL CHARACTERISTICS OF SJÖGREN'S SYNDROME IN THE PRESENCE OR ABSENCE OF OBJECTIVE SICCA SYMPTOMS**

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**Background:** Sjögren's syndrome (SS) is generally diagnosed on the basis of objective criteria, including xerophthalmia, xerostomia, autoantibodies, and labial salivary gland biopsy. Patients without objective sicca symptoms (non-sicca SS) require a biopsy. For such patients, we should evaluate pretest probability using parameters other than sicca symptoms before performing an invasive biopsy. To assess pretest probability, data on clinicopathological characteristics of non-sicca SS are needed.

**Objectives:** This study aimed to analyze the clinicopathological features of non-sicca SS. Epidemiological data, antibody profiles, organ involvement, and labial salivary gland biopsy results in non-sicca SS patients were compared with those in SS patients with objective sicca symptoms (sicca SS).

**Methods:** We selected 103 patients with primary SS who met Japanese or American College of Rheumatology criteria; those whose results exceeded the focus score by 1 underwent salivary gland biopsy. Objective xerophthalmia was evaluated with the Schirmer's test, and objective xerostomia with the Saxon's test. Seventeen patients were excluded because neither test was performed. Sicca SS was defined as a positive Schirmer's and/or Saxon's test result. Clinical and laboratory data were compared in 70 sicca SS and 16 non-sicca SS patients.

**Results:** Non-sicca SS patients were younger at diagnosis (45.9±14.8 vs. 61.4±15.1 years,  $p < 0.001$ ), had a shorter disease duration (1.1±1.5 vs. 6.9±8.9 years,  $p < 0.001$ ), and had a higher rate of positive anti-SS-A/Ro antibody (100 vs. 74.3%,  $p = 0.023$ ), and a lower rate of positive anti-centromere antibody (6.3 vs. 44.3%,  $p = 0.005$ ). Subjective xerophthalmia and xerostomia rates were similar between the groups, but fewer non-sicca SS patients had sicca symptoms as chief complaints (18.8 vs. 58.6%,  $p = 0.004$ ). There were no significant differences in focus score, leukocyte and lymphocyte counts, serum IgG levels, and positive rheumatoid factor and antinuclear antibody levels. The maximum European League Against Rheumatism Sjögren's Syndrome Disease Activity Index (ESSDAI) score during follow-up showed no significant difference (3.34±4.27 in non-sicca SS vs. 3.83±4.68 in sicca SS,  $p = 0.30$ ). However, more non-sicca SS patients had ESSDAI scores  $\geq 1$  (100 vs. 71.4%,  $p = 0.015$ ), a positive correlation with the biological domain of the ESSDAI (87.5 vs 58.6%,  $p = 0.03$ ), and articular symptoms (37.5 vs 8.6%,  $p = 0.003$ ).

**Conclusions:** Non-sicca SS patients were younger, had shorter disease duration, and a higher rate of positive correlation with the biological and articular domains of the ESSDAI. Moreover, all non-sicca SS patients had ESSDAI scores  $\geq 1$ . When we diagnose SS patients without objective sicca symptoms, we should assess age, disease duration, and extraglandular organ involvement before performing labial salivary gland biopsy.

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**AB0547 THE PREVALENCE AND THE RISK FACTOR OF HYPERTENSION AND DYSLIPIDEMIA IN SYSTEMATIC LUPUS ERYTHEMATOSUS PATIENTS: EXPLORATORY RESEARCH**

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**Background:** Hypertension (HT) and dyslipidemia (DL) are the risk factors for all-cause mortality, cardiovascular and cerebrovascular disease, and end-stage renal disease in SLE patients<sup>1</sup>. Neither disease activity nor chronic damage were associated with the metabolic syndrome in SLE patients<sup>2</sup> and there were few reports about the risk factors of HT and DL in Japanese SLE patients.

**Objectives:** We aimed to describe a prevalence of HT and DL and to identify the risk factor of HT and DL in Japanese SLE patients.

**Methods:** All SLE patients visited at Showa University Hospital and Okayama University Hospital from January 2016 to September 2016, were enrolled in a cross-sectional study. SLE patients who satisfied American College of Rheumatology (ACR) criteria were included. HT was defined as usage of anti-HT drugs and DL was defined as usage of anti-DL drugs. We performed descriptive statistics and binomial logistic regression analysis to identify the risk factors of HT and DL. Variables considered possible risk factors were BMI, drinking status, smoking status (current smoking), current daily dose of glucocorticoids, past maximum dose of glucocorticoids, lupus nephritis, Systemic Lupus Erythematosus Disease Activity Index 2000 (SLEDAI-2K), and Systemic Lupus International Collaborating Clinics/American College of Rheumatology Damage Index (SLICC/ACR-DI).

**Results:** In total, 244 participants were enrolled. The mean age was 46.2±15.3 years, and 222 (91%) were female. The mean current daily dosage of glucocorticoids was 6.7±5.9 mg, and the mean SLEDAI-2K was 5.0±5.2 and the mean SLICC/ACR-DI was 1.3±1.7. The prevalence of HT and DL were 29.1% (71/244) and 22.1% (54/244). Both HT and DL were confirmed in 11.9% (29/244) patients. On binomial logistic regression analysis, BMI (regression coefficients ( $\beta$ ) = -0.095; 95% confidential interval (CI) = -0.173 to -0.020), drinking status ( $\beta$  = 0.443; 95% CI = 0.000 to 0.879), past maximum dosage of glucocorticoids ( $\beta$  = -0.018; 95% CI = -0.036 to -0.004) and lupus nephritis ( $\beta$  = -0.727; 95% CI = 0.230 to 1.241) were identified as the significant independent risk factors of HT. On the other hand, only age ( $\beta$  = -0.030; 95% CI = -0.055 to -0.006) was identified as the independent risk factor of DL. There was no independent risk factor of having both DL and HT.

**Conclusions:** Our results could help to identify patients at higher risk of HT and DL.

**References:**

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**AB0548 CIRCULATING PROLACTIN LEVEL IN SYSTEMIC LUPUS ERYTHEMATOSUS AND ITS CORRELATION WITH DISEASE ACTIVITY: A META-ANALYSIS**

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**Background:** Prolactin has an immune stimulatory effect and may promote autoimmunity by encouraging the development of antigen presenting cells expressing MHC class II and co-stimulatory molecules and modulating IFN- $\gamma$  secretion.

**Objectives:** This study aimed to evaluate the relationship between circulating prolactin level and systemic lupus erythematosus (SLE), and to establish a correlation between plasma/serum prolactin levels and SLE activity.

**Methods:** We performed a literature search for studies that examined prolactin status in SLE patients and controls, and the relationship between circulating (serum or plasma) prolactin levels and SLE using PUBMED, EMBASE, and Cochrane databases. We conducted a meta-analysis comparing the plasma/serum prolactin levels in patients with SLE to controls, and examined correlation coefficients between circulating prolactin level and SLE disease activity.

**Results:** Twenty-five studies with a total of 1,056 SLE patients and 426 controls were included. Prolactin levels were significantly higher overall in the SLE group than in the control group (SMD =0.987, 95% CI =0.512 - 1.463,  $p = 4.7 \times 10^{-5}$ ). Stratification by ethnicity showed significantly elevated prolactin levels in the SLE group in Asian, Latin American, and mixed populations (SMD =0.813, 95% CI =0.137 - 1.490,  $p = 0.018$ ; SMD =0.981, 95% CI =0.307 - 1.655,  $p = 0.004$ ; SMD =1.469, 95% CI =0.443 - 2.495,  $p = 0.005$ , respectively), but not in the European population. Meta-analysis of correlation coefficients showed

a significantly positive correlation between circulating prolactin level and SLE activity (Correlation coefficient =0.379, 95% CI =0.026–0.487,  $p=4.0 \times 10^{-9}$ ).

**Conclusions:** Our meta-analysis demonstrated that circulating prolactin levels are higher in patients with SLE and that a significantly positive correlation exists between prolactin levels and SLE activity.

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## Vasculitis

### AB0549 DEMOGRAPHIC FEATURES AND CLINICAL ASPECTS OF BEHÇET'S DISEASE IN OMANI PATIENTS

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**Background:** Behçet's disease (BD) is a chronic, relapsing, multi-system vasculitis of unknown aetiology. Few reports support the hypothesis that BD has a primarily hereditary basis. It complicated diversified clinical features predominantly involving oral and genital ulcers, ocular and cutaneous lesions. The clinical features of this disease have been described to be different according to geographical areas and gender.

**Objectives:** The objective of the study is to explore the demographic features and clinical aspects of BD in Omani patients.

**Methods:** 56 BD patients were recruited and clinical data parameters were recorded including age, sex, age at diagnosis, duration of symptoms till diagnosis, disease characteristics such as oral and genital ulcers, ocular manifestations, the presence of arthritis and cutaneous lesions such as papulopustular lesions and erythema nodosum. Furthermore, other systemic involvement was studied including gastrointestinal, neurological & vascular manifestations. Laboratory tests of BD and treatment used were recorded in each patient.

**Results:** The onset was between 6–74 years with a male predominance. Oral ulcers were the most common manifestation, followed by genital ulcers, ocular lesions and arthritis. Vascular lesions and GI manifestations were less common. Cutaneous manifestations were rare in patients with BD. The frequency of neurological involvement was significantly high. There were no reported cardiac or urogenital manifestations.

**Conclusions:** There are quite significant clinical geographical and gender differences among BD patients in which genetic and immunological factors might participate its aetiopathogenesis.

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### AB0550 AN AUDIT OF BEHÇET'S SYNDROME RESEARCH: RECENT 6 YEARS

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**Background:** A previous audit by our group of Behçet's syndrome (BS) research, published in 2011 (1) had revealed a list of problems related to research methodology. They were mainly the relative lack of prospective studies, proper use of control groups, a marked under utilization of power calculations where needed and a paucity of studies reporting negative results.

**Objectives:** We have reassessed the same items as in the previous survey in articles about BS since published. An additional item looked at was self criticism in manuscript preparation (2).

**Methods:** Original articles from 15 highest impact factor journals of internal medicine, rheumatology, dermatology and ophthalmology between January 2010 and February 2016 were analyzed by two observers. Study designs, presence of necessary control groups, power calculations and reporting of negative outcomes were tabulated. Presence of self-criticism was assessed both by reading and specific word scanning. Discrepancies between the observers was reconciled in a joint session of all 3 authors.

**Results:** A total of 188 articles, 149 (79%) clinical and 39 (21%) basic, were analyzed. Of 94 studies in which a time-element classification was appropriate; 14% were prospective, 57% cross-sectional and 29% retrospective studies. There were only 3/188 controlled trials. Out of 71 studies in which the study design necessitated control groups, 69 (97%) had healthy and 30% had diseased while 2 did not have any control groups. 50 of the same 71 studies were about genetic association and 13 (26%) had diseased controls in addition to the usual healthy controls. Out of 107 studies in which power calculations were necessary, only 18 (16%) gave power calculations. Of these 13 were belonged to 50 (26%) of the genetic association studies and 3/3 to the controlled drug trials. Among 107 studies in which a negative outcome could be expected only 12 studies (11%) reported such outcomes. Finally, by electronic scanning, a limitation acknowledgement was present in 92/188 (49%) of articles [76/149 (51) for clinical and 16/39 (41%) for basic]. When self critique was assessed by text reading these percentages increased to 113 (60%) for total, 93 (62%) clinical and 20 (51%) for basic science studies.

**Conclusions:** Similar methodological problems seem to exist in current BS research as compared to what we had noted 6 years ago. The relative lack of basic science articles (21%) in a condition with a yet unknown cause (s) and the paucity of controlled clinical trials with the recent much increased availability of biologics are particularly worrisome. On the other hand; there was an increased inclusion of diseased controls in genetic association studies, 26% in the current and 13% in the former surveys. Similarly, an optimistic note might be that the current survey showed basic research in BS included more self-criticism (41–51%) as compared to what was noted among the general rheumatology manuscripts (15–20%) (2).

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### AB0551 THE IMPACT OF TEMPORAL ARTERY BIOPSY ON DIAGNOSIS OF GIANT CELL ARTERITIS IN CLINICAL PRACTICE

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**Background:** Temporal artery biopsy (TAB) is the current gold standard for diagnosis of giant cell arteritis (GCA). Clinical manifestations of GCA include cranial symptoms, features of polymyalgia rheumatica (PMR), fever of unknown origin (FUO) and large vessel involvement, following by elevation of C-reactive protein (CRP) and erythrocyte sedimentation rate (ESR). In these patients TAB confirms diagnosis.

**Objectives:** In the current study the impact of TAB on diagnosis of GCA in a large number of patients is presented.

**Methods:** 245 patients who had undergone TAB were evaluated. All patients were more than 50 years old and were admitted in a tertiary University Hospital during the period 2006–2016. More specifically 164 were admitted in the division of internal medicine (DIM), 53 in the rheumatology clinic (RC), 6 in the eye clinic (EC) and 3 in the neurology clinic (NC). All the clinical and laboratory data were recorded and analyzed appropriately.

**Results:** The mean age of the patients was 68.6±5.6 year and 61.5% were women. 49/245 patients had positive TAB (21.17%). More specifically 5/6 positive TAB (83.3%) were ordered by the EC with signs of visual disturbances, mainly visual loss, diplopia and headache. 12/56 positive TAB (22.6%) were ordered by the RC with clinical features of headache and PMR. 31/164 (18.9%) with positive TAB were ordered by DIM with clinical signs of PMR, FUO and anemia of chronic disease and finally 1/3 with positive TAB (33.3) were ordered by the NC with clinical features of severe headache. All patients with positive TAB had elevated levels of CRP and ESR.

**Conclusions:** In elderly patients with cranial symptoms, visual disturbances, PMR, FUO and raised acute phase reactants, the possibility of GCA is very high and TAB is necessary to confirm diagnosis.

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### AB0552 ANTIPHOSPHOLIPID ANTIBODIES IN GIANT CELL ARTERITIS

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**Objectives:** The aim of our prospective study was to evaluate the role of antiphospholipid antibodies (aPL) on the clinical presentation of giant cell arteritis (GCA).

**Methods:** GCA patients diagnosed for the first time between 1. September 2011 and 31. December 2016 at our secondary/tertiary rheumatology center and in whom aPL-Abs were determined at presentation were included. We studied four types of aPL-Abs in patient's sera: lupus anticoagulants (LA), IgG and IgM isotype of anticardiolipin antibodies (aCL), of antibodies to  $\beta$ 2-glycoprotein 1 (a $\beta$ 2GPI) and of antibodies to phosphatidylserine-prothrombin complex (aPS/PT). LA activity was determined only in patients not receiving anticoagulant therapy. A dilute Russell viper venom time test was used and a ratio above 1.2 was considered positive. aCL, a $\beta$ 2GPI and aPS/PT were measured using an in-house ELISA. A value above the 99th percentile of healthy control population was taken as positive.

**Results:** During the 64-month observation period we performed all aPL-Abs tests in 121 GCA patients (81 females (66.9%); median (IQR) age 73.8 (66.4; 78.7) years). We found LA, aCL, a $\beta$ 2GPI and aPS/PT in 59 (48.8%), 55 (45.5%), 15 (12.4%) and 18 (14.9%) cases, respectively. Fifty-four patients (44.6%) were single, 25 (20.7%) double, 13 (10.7%) triple and 1 (0.8%) quadruple aPL-Abs positive. 28 patients (23.1%) were aPL-Abs negative. Clinical characteristics of individual aPL-Ab type groups are presented in Table 1. There was one case of