GRAPPA Trainees Symposium 2015: A Report from the GRAPPA 2015 Annual Meeting

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ABSTRACT. At the 2015 annual meeting of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) in Stockholm, Sweden, rheumatology and dermatology trainees engaged in psoriasis or psoriatic arthritis research presented their work to meeting attendees in a trainees symposium. This report briefly reviews 6 oral presentations and 20 posters presented at the meeting. (J Rheumatol 2016;43:952–8; doi:10.3899/jrheum.160113)

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The Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) held a trainees symposium at its 2015 annual meeting in Stockholm, Sweden. Similar to past years[1,2,3,4,5,6], rheumatology or dermatology trainees from North America, South America, and Europe who are current members of GRAPPA or who were nominated by GRAPPA members were invited to submit abstracts based on recent research in psoriatic arthritis (PsA) or psoriasis. A total of 26 abstracts were submitted and ranked by a committee of reviewers. Six trainees with the highest-scored abstracts were invited to deliver oral presentations; the remainder presented posters that outlined key aspects of their research. Christopher T. Ritchlin (Rochester, New York, USA), chaired the session, where GRAPPA members queried the trainees and provided feedback on how to transition current research projects to the next level.

Oral Presentations

Cross sectional study investigating the effect of the presence of fibromyalgia on common clinical disease activity indices in patients with psoriatic arthritis (Shai Brikman, Israel).
Fibromyalgia (FM) is commonly encountered in rheumatology clinics and shares clinical features with PsA. Dr. Brikman presented his findings on the effect of FM on clinical disease activity indices in patients with comorbid PsA. Seventy-three consecutive outpatients with PsA were enrolled in a prospective cross-sectional study and were evaluated for the presence of FM using the American College of Rheumatology (ACR) criteria. Both patient-reported outcome questionnaires [Health Assessment Questionnaire (HAQ), Bath Ankylosing Spondylitis Disease Activity Index (BASDAI), Dermatology Life Quality Index (DLQI)] and disease activity assessment tools [Composite Psoriatic Disease Activity Index (CPDAI), minimal disease activity (MDA), Disease Activity for PsA (DAPSA)] were used to evaluate disease severity.

In this cohort, the prevalence of FM was 17.8%. CPDAI and DAPSA scores were significantly higher in those patients with both PsA and FM (9.23 ± 1.92; 27.53 ± 19.23) versus in patients with PsA only (4.25 ± 3.14; 12.82 ± 12.71; $p < 0.001$; $p = 0.003$). No patient with FM met MDA criteria, while 26 PsA-only patients met MDA criteria (43.3%, $p = 0.003$). HAQ, BASDAI, and DLQI scores were significantly worse in patients with PsA and associated FM.

Dr. Brikman concluded that FM is related to worse scores on the CPDAI, DAPSA, MDA, HAQ, BASDAI, and DLQI in patients with PsA; thus, concomitant FM and PsA should be approached with caution to avoid unnecessary escalation of therapy based on current algorithms that use these tools.

Sex differences in clinical features, methotrexate use, and mortality in a large cohort of real-life patients with psoriasis and psoriatic arthritis (Elena Generali, Rozzano, Milan, Italy)
Dr. Generali evaluated the differences between sexes for age at diagnosis, age at initiation of methotrexate (MTX) therapy, disease duration, MTX retention rate, and mortality in a large cohort of patients with psoriasis and PsA. She reviewed 761 psoriasis and 2799 patients with PsA diagnosed between 2004 and 2013 from an administrative database and then linked the cases to MTX prescriptions. Age at diagnosis was found to be significantly higher among women versus men for PsA (55.6 vs 53.1 yrs, $p < 0.0001$), but not psoriasis (57.9

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vs 56.2 yrs, p = 0.0629). Disease duration did not differ significantly between women and men for both PsA and psoriasis. MTX was prescribed to 48% of patients with psoriasis and 77% of patients with PsA while, more importantly, MTX was prescribed significantly less frequently to women in both psoriasis (40% vs 56%; p < 0.0001) and PsA (74% vs 82%; p < 0.0001) cohorts. Interestingly, MTX was started at a significantly older age in women with PsA (55.2 vs 51.2 years, p < 0.0001) and psoriasis (56 vs 53 years, p = 0.02). The age at first prescription of MTX was also significantly associated with drug survival, with an adjusted HR of 1.02 (95%CI 1.01-1.03, p = 0.001). Male sex was also statistically associated with a longer MTX retention rate, compared to women (HR 1.14, 95% CI 1.05-1.24, p = 0.001). Unadjusted mortality rates did not differ significantly between men and women with combined psoriasis and PsA.

Dr. Generali concluded that women are significantly older at diagnosis of PsA, are prescribed less MTX compared to men, and are significantly older at initiation of MTX therapy while manifesting lower drug survival compared to men. These observations may imply that psoriasis and PsA manifest different characteristics in men and women, thus justifying more personalized management.

Fatigue in psoriatic arthritis — a cross-sectional study of 246 patients from 13 countries (Tania Gudu, Paris, France).

Dr. Gudu studied the patient-perceived importance and magnitude of fatigue, and factors that might explain high levels of fatigue in patients with PsA, in an ancillary analysis of a cross-sectional observational study, conducted in 13 countries, of patients with PsA who fulfilled classification criteria for PsA [CASPAR criteria (ClASsification criteria for Psoriatic ARthritis)]. Levels of fatigue were assessed by numeric rating scale (range 0–10). A total of 246 patients (51.6% female) were analyzed, with a mean age of 51.2 years, mean disease duration of 9.9 years, and mean Disease Activity Score of 28 joints (DAS28) of 3.5. Fatigue was ranked second after pain in patient-perceived importance. The magnitude of fatigue was high, with a mean fatigue of 5.0. Fatigue > 5/10 was explained by the following elements in multivariate analysis: skin psoriasis [OR 4.67 (95% CI 1.05, 20.72)], tender joints [OR for 5 extra joints 1.30 (95% CI 1.01, 1.68)], and lower education level [OR for each year less 1.09 (95% CI 1.02, 1.23)].

These findings indicate that fatigue is a priority for patients with PsA. Fatigue levels were mainly associated with disease-related factors rather than patient-related variables, indicating that fatigue may be strongly related to the disease process in PsA.

Utility of power Doppler ultrasound (PDUS)-detected synovitis for the prediction of short-term flare in patients with PsA in clinical remission. (Josefina Marin, Buenos Aires, Argentina)

Dr. Marin studied whether PDUS assessment of synovitis predicts short-term relapse in patients with PsA in clinical remission, as defined by fulfillment of MDA criteria or DAS28 < 2.6. Patients underwent PDUS examination of 18 joints (2nd and 3rd metacarpophalangeal joints, 2nd and 3rd proximal interphalangeal joints, wrist, knee, ankle, and 2nd and 5th metatarsophalangeal joints). Power Doppler (PD) synovitis was defined as the presence of intraarticular PD signal ≥ 1. All patients were followed for 6 months. Flare was defined as the requirement of change in disease-modifying antirheumatic drugs (DMARD). Of 96 patients evaluated, 47 (49%) fulfilled MDA criteria and 36 (37.5%) fulfilled DAS28 remission criteria; of these, 15 (32%) and 10 (28%) experienced flare within the next 6 months, respectively. Thirteen of the 15 patients with flare among patients with MDA had PD signal ≥ 1, while only 2 of the 32 patients without flare had positive PD findings (RR 14; 95% CI 3.6, 53.8; p < 0.0001). Among the 10 patients with DAS28 remission who experienced flare, 9 (90%) had PD positive signal, while only 5 (19%) of the 26 patients without flare were PD-positive (RR 14.4; 95% CI 2, 99.8; p < 0.0001). On logistic regression analysis, the only variables associated with flare were positive PD signal (OR 31; 95% CI 1.4, 696; p = 0.029) and use of nonbiologic DMARD (91% MTX; OR 12; 95% CI 1.2, 120; p = 0.034). Study results were unique in showing that among patients with PsA in clinical remission, residual synovial inflammation as determined by the presence of positive PD signal was a strong predictor of pending flare.

Impact of the GRAPPA online standardized training module on inter- and intrarater reliability of PASI scoring (Michael Milliken, Salt Lake City, Utah, USA)

Dr. Milliken presented results from the GRAPPA Psoriasis Area and Severity Index (PASI) and Physician Global Assessment (PGA) online training modules, developed in 2010 to help standardize training in these psoriasis assessment instruments. Each training module consists of an online instructional video followed by a certification test.

From 2010 through July 2013, 934 unique participants, representing 45 countries, completed 1003 entries into the PASI training module: 790 participants completed 890 entries into the 5-point PGA module; and 265 participants completed 422 entries into the 6-point PGA module.

Participants were largely board-certified dermatologists, rheumatologists, and their trainees who were required to undergo training for participation in industry-sponsored clinical trials. There was a fairly balanced representation among academic centers, private practice, and community-based research centers as well as between clinicians with significant, minimal, or no clinical experience.

Intraclass correlation coefficients (ICC 2,1) were used to analyze the interrater reliability in the PASI training module. ICC values ranged from 0.768 to 0.849 among the various groups with an overall ICC of 0.789. Intrarater reliability was assessed using analysis of variance on those participants completing multiple testing sessions separated by at least 30 days: no statistically significant difference was shown

between test and retest results. Analysis of the PGA modules using histograms and modes showed no significant difference between the scores obtained using the 5-point versus 6-point scale for the same patient photographs.

These findings suggest that an online standardized training module is effective in delivering PASI training with high inter- and intrarater reliability. They also suggest that there is little additional clinical information gained by using PGA scales with more than 5 points.

Definition of Flare in Psoriatic Arthritis (Anna Moverley, Leeds, UK)

Dr. Moverley previously performed a series of interviews on patients with PsA, extracted repeated themes from the interviews, and divided items into the domains of skin, joints, emotional, participation, fatigue, and miscellaneous to explore what it means to have a flare of disease. In this phase of the project, she enlisted participation from 2 cohorts of patients and 1 physician cohort on Internet-based surveys designed as Delphi exercises. Full results are presented elsewhere in this supplement[7].

One hundred three patients responded to the first survey and 57 to the second survey; 125 physicians responded to the first survey and 81 to the second. Of 79 items included in the first survey and 12 new items suggested by the respondents, 14 items were agreed upon as important by patients and 22 items by physicians, with 6 of these items shared between the 2 groups.

The ultimate goal of this project is to develop a tool to assess flare in PsA in prospective cohorts. The steps taken so far have helped to determine items that are important for patients and physicians in defining whether a patient is having a flare.

Poster Presentations

Özun Bayındır (Ankara, Turkey) presented cross-sectional characteristics of a large group of patients with PsA from the PsART registry (Psoriatic Arthritis Registry of Turkey). Of 746 patients who were recruited, 64.7% were female, 34% had a history of psoriasis, and 5.2% had a history of PsA in their families. The initial manifestation was arthritis in 4.4% of cases and psoriasis in 86% of cases. The most frequent type of PsA was polyarthritis, followed by axial disease. Patients with isolated axial involvement were significantly younger than those with other forms of arthritis and those with lower body mass index values. A history of smoking was a differentiating factor, as patients who had isolated axial disease were more likely to have ever smoked than the other groups (62.7% vs 39.2%; $p < 0.001$). The author concluded that patient characteristics of the PsART are comparable to previously reported registries, supporting the external validity of the PsART. Further, smoking may be a key determinant for the development of this pattern of arthritis in patients with psoriasis.

Aicha Bouraoui (London, UK) retrospectively analyzed the clinical and demographic characteristics of patients with PsA by comparing subgroups of axial versus peripheral disease. Of 155 patients who were analyzed, the majority (n = 127, 82%) had peripheral disease, while 28 patients (18%) had axial disease ($p < 0.05$). Interestingly, among the 28 patients with axial disease at presentation, 18 (64%) subsequently developed peripheral joint involvement, predominantly in an oligoarthritis pattern. Diagnosis of PsA was delayed in patients presenting with axial disease compared to those presenting with peripheral disease. Patients with peripheral or axial disease had similar epidemiological characteristics, but the HLA-B27 phenotype, uveitis, and inflammatory back pain were more commonly associated with axial disease.

Gabriela Carvalho (São Paulo, Brazil) evaluated the prevalence of nonalcoholic fatty liver disease (NAFLD) in patients with PsA through abdominal ultrasound and laboratory analysis of hepatic function tests. Of 56 patients who were recruited from a single outpatient rheumatology clinic and evaluated, 3 were excluded due to alcoholic cirrhosis or hepatitis C infection. NAFLD was detected in 63% of the remaining patients with PsA; 2 of those had liver biopsy confirming this finding. Metabolic syndrome was present in almost 50% of patients, was similar between sexes, and was more prevalent in patients with NAFLD ($p < 0.001$). No statistical difference was found for any index of psoriatic disease activity between patients with or without NAFLD. The author recommends screening of NAFLD as part of routine management of patients with PsA.

Francisco Colombres (Tucuman, Argentina) performed a multicenter cross-sectional study using the Argentine Consortium of Early Spondyloarthritis (CONEART) to describe the clinical and genetic characteristics of a cohort of patients with early (< 3 years onset) PsA in Argentina. The prevalence of PsA was 38.6% (87/225), of which 52% (45) were male. Fifty-five patients (63.2%) had peripheral involvement, 9 (10.3%) had axial involvement, and 23 (26.4%) had mixed involvement. Racial distribution included 47 (54%) white, 28 (32%) mestizo, and 12 (14%) Amerindian. In contrast to previous reports, the frequency of HLA-B27–positive patients with PsA in this cohort was low (7.1%). When comparing HLA-B alleles among patients with PsA and SpA, HLA-B*18 and HLA-B*62 were more frequent in patients with PsA (19.4% vs 5.3%; $p = 0.02$; and 19.4% vs 6.7%; $p = 0.054$, respectively). Patients with mixed involvement (peripheral + axial) had significantly higher HAQ-Disability Index ($p = 0.0009$) and Bath Ankylosing Spondylitis Functional Index ($p = 0.015$) scores versus patients with peripheral involvement alone. No differences in enthesitis scores were observed among the groups. High disability was observed despite the cohort comprising patients with early disease.

Alam Fiaz (Doha, Qatar) observed the frequency of hyperpigmentation of the skin over the inflamed joints and

inflamed synovial sheath of patients with various forms of spondyloarthritis (SpA) in a prospective case series in rheumatology outpatient clinics. Of 25 consecutive patients with a diagnosis of SpA, 5 had ankylosing spondylitis (AS), 11 had PsA, and 12 had undifferentiated SpA (USpA). No skin pigmentation was observed over large inflamed joints, and 9/14 patients (64%) with small joint inflammation showed hyperpigmentation of the skin over the inflamed joints. Of those, 6/9 patients had PsA and 3 had USpA. No patient with AS had this finding. Two patients had tenosynovitis of the hand flexors, but none had hyperpigmentation over the tendon sheaths. The author concluded that hyperpigmentation over inflamed small joints of the hands and feet is more common than previously reported, and can be a useful clinical observation in helping to differentiate the various SpA. The author notes that this observation was seen in all skin colors.

Adi Kibari (Haifa, Israel) performed a retrospective, longitudinal, cohort case-control study using the records of patients with PsA collected between 2000 and 2013 from the database of Israel's largest healthcare provider, Clalit Health Services. Of 3161 patients with PsA, 1474 were men (46.6%) and 1687 (53.4%) were women. Patient mean age was 58.29 years. A total of 31,610 matched controls (patients without history of psoriasis or rheumatoid arthritis) were chosen, matched for age and sex. Comparative analysis demonstrated higher prevalence of the following in the case cohort: ischemic heart disease (18.95% vs 14.49%, $p < 0.0001$), valvular heart disease (6.99% vs 5.10%, $p < 0.0001$), congestive heart failure (5.98% vs 4.61%, $p < 0.001$), cardiomyopathy (1.28% vs 0.80%, $p < 0.010$), carotid artery disease (2.53% vs 1.99%, $p = 0.053$), and peripheral vascular disease (4.87% vs 3.68%, $p = 0.001$). Prevalence of cerebrovascular accident and aortic aneurysm were not significantly higher in patients compared with the control group. This research builds on the evidence that a high prevalence of cardiovascular comorbidities is found in patients with PsA.

Sian Yik Lim (Boston, Massachusetts, USA) evaluated the effects of statin initiation on risk of mortality among patients with psoriasis or PsA in an incident-user cohort study with time-stratified propensity score matching in a UK general population database. Dr. Lim compared all-cause mortality between statin initiators and noninitiators among patients with new diagnosis of psoriatic disease (n = 36,228) between 2000 and 2012. To closely account for confounding by indication and potential calendar-time effects, his group used propensity score-matched cohorts of statin initiators and noninitiators within 1-year cohort accrual blocks. In this cohort, statin initiation was associated with a 30% reduction in all-cause mortality (HR 0.70). When the unmatched cohorts were compared to examine the effectiveness of their propensity score matching, the statin initiators actually showed a 49% higher risk of early mortality (HR 1.49) than noninitiators owing to confounding by indication. Findings indicated that statin initiation was associated with a survival benefit among patients with psoriasis or PsA with an effect magnitude appearing larger than that shown in the JUPITER trial[8].

Isla Morante (Oviedo, Spain) analyzed the frequency and determinants of cerebrovascular disease in a cohort of 205 patients with PsA as diagnosed by CASPAR criteria. Cerebrovascular disease was defined as any transient or permanent event as a result of a disorder of cerebral circulation, either ischemic or hemorrhagic. In multivariate analysis, the predictors of cerebrovascular disease were pustular psoriasis (OR 10.9, $p = 0.034$), erythroderma (OR 31.2, $p = 0.019$), polyarticular onset (OR 7.8, $p = 0.044$), diabetes (OR 9.7, $p = 0.013$), and ischemic heart disease (OR 23, $p = 0.002$). The authors concluded that cerebrovascular disease is common in PsA and that patients with the most severe phenotypes of psoriatic disease, as well as those with other cardiovascular comorbidities, are at higher risk for developing this complication.

Andreea Nicoleta Boca (Cluj-Napoca, Romania) designed a 15-item questionnaire to assess the presence and effect of psoriasis on the patient or their acquaintances, and aspects related to psychosocial and professional impairment, to determine the effects of psoriasis on Romanian quality of life. In all, 2300 subjects filled out the questionnaire across all 42 Romanian counties, and analysis was performed on 2240 valid questionnaires, which showed that a mean of 30% of Romanians were not aware of the disease; if a photo of psoriasis was shown to this group, 44.8% considered it contagious. Of respondents who thought they knew what the disease was (41.2%) and those who knew an affected individual (31.1%), 20.4% thought the disease was contagious. Of the 5.18% of the Romanian population with psoriasis in this cohort, 86.95% complained of personal, social, or professional impairment due to this disease and 19.1% felt that psoriasis affected them in all aspects assessed in the questionnaire. The author concluded that lack of awareness of psoriasis in Romania may lead to stigmatization of these patients as a result of concerns that it is contagious. Although the self-reported prevalence of psoriasis was higher in this cohort than the mean European prevalence, diagnoses were not confirmed. Similar data have not been previously reported in Romania and may be used to increase awareness of the disease in this country.

Lihi Eder (Toronto, Ontario, Canada) performed a metaanalysis examining HLA class I genes as susceptibility markers of PsA in patients with psoriasis, aiming to strengthen evidence about reported HLA risk alleles for PsA and to identify novel susceptibility markers to the disease. Her multivariate analysis included 1677 patients with PsA, 702 patients with psoriasis without arthritis, and 2275 healthy controls of European ethnicity from 4 sites in Canada, Ireland, and Spain. HLA-B and HLA–C alleles were genotyped using sequence-specific primers, with differences

being compared using the likelihood ratio test by regression models with site indicator. The following HLA alleles were confirmed as independent susceptibility markers of PsA in patients with psoriasis: HLA-B*08 (OR 1.48, p = 0.002), HLA-B*27 (OR 3.69, $p = 2.8 \times 10^{-12}$), HLA-B*38 (OR 1.68, p = 0.05), HLA-B*39 (OR 1.80, p = 0.01), and HLA-C*06 (OR 0.47, $p = 6.8 \times 10^{-13}$). The following HLA alleles were confirmed as susceptibility markers for PsA in the general population: HLA-B*27 (OR 2.37, $p = 2.5 \times 10^{-13}$), HLA-B*38 (OR 3.81, $p = 2.5 \times 10^{-13}$), HLA-B*39 (OR 2.17, $p = 9.5 \times 10^{-6}$), HLA-B*57 (OR 2.06, $p = 3.6 \times 10^{-7}$), and HLA-C*06 (OR 1.29, p = 0.02). The frequency of the following alleles was reduced in PsA compared to healthy controls: HLA-B*07, HLA-B*44, HLA-B*40, HLA-B*15, HLA-B*49, HLA-B*51, HLA-B*55, HLA-C*04, and HLA-C*08. The author concluded that PsA susceptibility is associated with several HLA class I alleles, with HLA-B*38, HLA-B*39, HLA-B*08, and HLA-B*27, conferring increased risk for the future development of PsA and HLA-C*06 being associated with a lower risk of future development of PsA in patients with psoriasis.

Caren Garber (Boston, Massachusetts, USA) conducted a case series to describe and evaluate the prescribing patterns and treatment outcomes at Tufts University in which pediatric patients with moderate-to-severe psoriasis were treated with systemic agents. She retrospectively collected data from 2008 to 2014 and used the Simple Measure for Assessing Psoriasis Activity (S-MAPA), the product of BSA (body surface area) and PGA as the efficacy measure. Twenty-seven patients aged 5–18 years met inclusion criteria, of whom 93% had previously failed topical medications. MTX was the most frequently prescribed agent at 70%, followed by etanercept (ETN) at 59%. Clearance rates were highest on biologic medications [67% for ETN and adalimumab (ADA), 33% for ustekinumab]. Narrowband ultraviolet B phototherapy (NBUVB), cyclosporine, and MTX were less effective in clearing psoriasis, although they were successful in improving S-MAPA > 50% from baseline 100%, 67%, and 33% of the time, respectively. Adverse events were minor, comprising previously well-described events (i.e., burning for NBUVB, gastrointestinal intolerance for MTX). The most common reason for discontinuation was secondary failure (ETN 38%, ADA 33%) or lack of response (MTX 37%, cyclosporine 33%). The author concluded that these results attest to the safety and efficacy of ETN, ADA, and ustekinumab in pediatric psoriasis, expanding the current treatment repertoire for recalcitrant pediatric psoriasis.

Rachel Grynszpan (Rio de Janeiro, Brazil) explored the correlation of the DLQI and the PASI before and after 32 sessions of phototherapy in 20 patients. She noted a moderate positive correlation between DLQI and PASI after phototherapy (r = 0.48, p = 0.03), but not before (r = 0.13, p = 0.57). The lack of correlation between DLQI and PASI before phototherapy was explained as possibly related to acceptance and adaptation strategies of patients with chronic disease. Improvement induced by phototherapy may help patients better deal with their disease state.

Julie Jefferson (Baltimore, Maryland, USA) noted the absence of rigorous assessment of inter- and intrarater reliability in the Nail Psoriasis Severity Index (NAPSI), the primary grading tool used in clinical trials, and designed a study to define these properties. She enlisted 8 graders (1 dermatologist, 2 physicians, and 5 clinical research coordinators with variable NAPSI experience), all of whom underwent a 10-minute NAPSI training session followed by an 80-slide PowerPoint presentation, with each slide containing a single psoriatic fingernail that was assessed using NAPSI. The raters then repeated the process on a separate PowerPoint presentation containing the same photographs, but in random order, yielding 2 sets of data for each rater. ICC, Cronbach's alpha coefficient, and Spearman ρ were used to assess interrater reliability, with ICC values of 0.785 and 0.790 for session 1 and 2, respectively. Cronbach's alpha coefficient was 0.970 for time 1, 0.970 for time 2, and 0.977 for both times. All Spearman ρ results were statistically significant with $p < 0.001$; time 1 mean 0.789, time 2 mean 0.784, and overall mean 0.827. Intrarater reliability was assessed using largest canonical correlation (0.9925) and Spearman ρ, which ranged from 0.931 to 0.980, $p < 0.001$. The author concluded that the NAPSI showed excellent agreement both between raters and within a single rater at 2 different timepoints. NAPSI can also assess both the nail matrix and nail bed disease, unlike other grading indices, and is easy and convenient for clinical use.

Ami Saraiya (Boston, Massachusetts, USA), performed a retrospective multicenter study examining patients diagnosed with both psoriatic disease and lupus erythematosus [including systemic lupus erythematosus (SLE), subacute cutaneous lupus (SCLE), and discoid lupus (DLE)] at Tufts Medical Center (TMC) and Brigham and Women's Hospital (BWH) in Boston. Electronic and paper charts were reviewed from 2007 to 2013 at TMC and 1990 to 2013 at BWH. Patients were identified by International Classification of Diseases, 9th ed, diagnostic codes for psoriasis and PsA and at least 1 type of lupus erythematosus, SLE, DLE, or SCLE. Diagnoses and flares were confirmed by examining clinical notes and applying the 1997 ACR criteria for SLE. Of 96 patients studied, 84 (87.5%) were female and 12 (12.5%) were male. Chronic plaque psoriasis was present in 78 (81.3%), 85 (88.5%) were diagnosed with SLE, 21 (21.9% with DLE, and 9 (9.4%) with SCLE. Psoriasis was present in 87 (90.6%) of SLE/SCLE, and PsA in 50 (52.1%) of these patients; 41 (42.7%) had both psoriasis and PsA in addition to lupus, and 9 (9.4%) had lupus and PsA without cutaneous psoriasis. Nonbiologic systemic agents (MTX or cyclosporine) were used to treat 64 (66.7%) patients, and 25 (26%) were treated with at least 1 biologic agent [tumor necrosis factor inhibitor (TNFi), ustekinumab, or abatacept (ABA)].

Twenty-two of those treated with a biologic had SLE; 20 received a TNFi, and ETN was the most commonly used agent. Only 1 patient [receiving infliximab (IFX)] had a lupus flare during treatment with biologics; the flare resolved after discontinuation of IFX, but recurred 15 months later. This patient also had 2 childhood flares prior to starting IFX. The author concluded that TNFi, ustekinumab, and ABA may be potential treatments for patients with comorbid lupus and psoriatic disease and that clinical lupus flares were infrequent in patients treated with TNFi.

C. Sanal Top (Istanbul, Turkey) assessed the validity of the Toronto Psoriatic Arthritis Screen II (ToPAS II) questionnaire in a Turkish population, using a Turkish translation completed by the authors of the original index. All subjects were assessed by a rheumatologist using a standard protocol that included demographic variables, physical examination, ToPAS questionnaire, and CASPAR criteria. Of 156 subjects (mean age 41.07) in the study, 58% were women, 46 subjects had psoriasis, 43 subjects had PsA, 41 were subjects from physical medicine and rehabilitation clinics, and 20 subjects (without PsA) were from a rheumatology clinic. The area under the receiver-operating characteristic curve was 0.99. An "optimal cutoff value" of 8 was chosen with resultant sensitivity and specificity of 95.83% and 98.04%, respectively. The authors concluded that the Turkish version of the ToPAS II questionnaire had high sensitivity and specificity and is a practical, accurate, efficient index for screening for PsA in their patient population.

Agnes Szentpetery (Dublin, Ireland) studied the change in immunohistochemical markers of synovial inflammation from baseline to 6 months after introducing ABA treatment in biological treatment–naive PsA patients with active disease for ≥ 3 months with clinical synovitis of the knee and the presence of a psoriatic skin lesion. She investigated whether cell markers of synovial inflammation correlate to disease activity measures and magnetic resonance imaging synovitis scores. Patients were randomized to receive ABA 3 mg/kg or placebo infusion. In total, 15 patients (8 female/7 male) with mean age 45 years were recruited. Four patients were treated with MTX; the remainder had not received prior DMARD treatment. At 2 and 6 months, 73% and 80% of patients were responders according to European League Against Rheumatism criteria, respectively. Nonresponders had significantly higher baseline C-reactive protein (CRP), 2-month erythrocyte sedimentation rate (ESR), CRP, DAS28-ESR, and DAS28-CRP, and higher 6-month enthesitis scores compared to responders. Results showed that ABA reduced synovial CD4-positive T cell expression in PsA over a 6-month treatment period. DAS28-ESR at baseline correlated with all observed T cell markers in the synovium 6 months following treatment.

Eric Sorensen (Boston, Massachusetts, USA) performed a retrospective observational cohort study examining the efficacy of ustekinumab in treating cutaneous psoriasis after a patient had failed a TNFi. He studied patients treated at TMC between January 1, 2008, and July 14, 2014, who had at least 1 prior TNFi treatment failure and were subsequently treated with ustekinumab. The percentage change from baseline of S-MAPA after 12 weeks of treatment was his primary endpoint. Primary TNFi failure was defined as never achieving ≥ 50% S-MAPA improvement (S-MAPA50) and secondary TNFi failure was defined as losing ≥ 50% improvement in patients who had previously achieved S-MAPA50. Of 44 cases that met inclusion criteria, primary TNFi failure was associated with lower percentage improvement in S-MAPA at 8 and 12 weeks (8 wks: 51.0% vs 26.5%, p = 0.017; 12 wks: 61.1% vs 36.2%, p = 0.027). There was no difference in ustekinumab efficacy between patients who failed single versus multiple TNF agents or secondary versus no secondary TNFi failure. He concluded that previous primary TNFi failure is an independent risk factor for decreased responsiveness to ustekinumab.

Junko Takeshita (Philadelphia, Pennsylvania, USA) examined the risk of development of herpes zoster infection in patients with severe psoriasis in the United Kingdom. Of a cohort of 192,986 patients with psoriasis, 11,918 had severe disease, defined as psoriasis requiring phototherapy or systemic therapy. There were 893,175 controls without psoriasis. The outcome was defined as a receipt of the diagnostic code for herpes zoster among the participants within the Health Improvement Network electronic medical record database. Through multivariate analysis adjusting for age, sex, comorbid disease, and systemic corticosteroid use, patients with psoriasis were at higher risk of developing herpes zoster than those without psoriasis (HR 1.28). The risk was greatest for those receiving phototherapy or systemic medications for severe psoriasis (HR 1.41). The author concluded that patients with psoriasis, particularly those receiving treatment for severe disease, are at increased risk of developing herpes zoster.

Natalie Wright (Boston, Massachusetts, USA) explored the burden of disease in a population with inverse psoriasis, using the Inverse Psoriasis Burden of Disease (IPBOD) questionnaire and comparing it to the DLQI in a cross-sectional study format applied to 16 patients. Results showed that the average DLQI score (8.5/30) was higher among patients with inverse psoriasis than those scores previously reported for plaque psoriasis or PsA. The average IPBOD score was 4.9/10 in the present study. Internal consistency tested using Cronbach's alpha coefficient was excellent, with an overall score of 0.89 for all items and a range of 0.88 to 0.91 for individual items. Correlation between the IPBOD and the DLQI was moderate to good in all areas, with Spearman correlation coefficient values ranging from 0.427 to 0.728. The author concluded that inverse psoriasis has a profound effect on patient quality of life and that the IPBOD questionnaire is a useful disease-specific tool for this disease.

Kiana Vakil-Gilani (Portland, Oregon, USA) investigated the correlation between the Psoriasis Quality of Life (PQoL-12) and the Routine Assessment of Patient Index Data 3 score (RAPID3) in patients with psoriasis or PsA. Data from the Center for Excellence in Psoriasis and PsA clinic at Oregon Health and Science University in Portland for patients from 2008 onward included 555,390 patients with psoriasis and 165 with PsA. Patient characteristics included mean baseline age of 46.7 years for psoriasis and 45.9 years for PsA, male-to-female ratio of 3:2 in psoriasis and 1:1 in PsA, mean disease duration of 0.93 years for psoriasis and 1.11 years for PsA, mean PQoL-12 scores of 65.8 for psoriasis and 75.2 for PsA, and mean RAPID3 scores of 2.4 for psoriasis and 3.7 for PsA. Using a nonlinear regression model, strong correlations were not observed between the PQoL and the RAPID3 outcome measures. The authors concluded that the RAPID3 correlates poorly with PQoL-12 and that these indices assess different aspects of psoriasis and PsA, providing distinct and important information regarding the patients' diseases.

GRAPPA members appreciated the oral and poster presentations and encouraged trainees to continue their work. The next GRAPPA Trainees Symposium will be held in July 2016 in Miami, Florida, USA.

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