GRAPPA 2015 Research and Education Project Reports

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ABSTRACT. At the 2015 annual meeting of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA), attendees were presented with brief updates on several ongoing initiatives, including educational projects. Updates were presented on the treatment recommendations project, the development of simple criteria to identify inflammatory musculoskeletal disease, new patient/physician Delphi exercises, and BIODAM (identifying biomarkers that predict progressive structural joint damage). The publication committee also gave a report. Herein we summarize those project updates. (J Rheumatol 2016;43:979–85; doi:10.3899/jrheum.160119)

Key Indexing Terms:
PSORIASIS PSORIATIC ARTHRITIS ARTHRITIS ASSESSMENT EDUCATION

Members of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) are participating in an international rheumatology-dermatology education program for rheumatologists, dermatologists, and trainees; the GRAPPA-SPARTAN (Spondyloarthritis Research and Treatment Network) collaborative continuing medical education (CME) symposia on psoriatic arthritis (PsA) and spondyloarthritis (SpA); a GRAPPA-NPF (National Psoriasis Foundation) collaborative CME symposium on PsA and psoriasis; several European rheumatology and dermatology collaborative symposia; and a video training program on physical examinations of joints, entheses, dactylitis, spine, skin, and nails. Summaries of these efforts are given here. Participating members were Philip J. Mease, Philip S. Helliwell, Wolf-Henning Boehncke, Amit Garg, Atul A. Deodhar, and Kristina Callis Duffin.

International rheumatology-dermatology symposia (Philip Mease). GRAPPA members continue to conduct educational symposia for rheumatologists, dermatologists, and trainees who are interested in PsA and psoriasis. A customary format is a 1- or 2-day symposium as a standalone meeting or in conjunction with a national rheumatology society meeting. Educational thought leaders from GRAPPA, both rheumatologists and dermatologists, develop the content of plenary lectures on all aspects of disease state, epidemiology, pathophysiology, assessment, and management. Smaller breakout sessions are then held to discuss difficult cases, demonstrate physical examination technique (joints, enthesitis, dactylitis, spine, and skin), and ultrasound. A pharmaceutical sponsor provides logistical support and convenes an audience of national/regional rheumatologist and dermatologists interested in psoriatic disease. Local faculty provide regional perspective. In 2014–2015, these symposia were convened in Tel Aviv, Saudi Arabia, Tokyo (twice), Seoul (twice), Salvador Bahia (Brazil), India, and adjacent to national rheumatology society meetings in Brazil, Nigeria, and India.

GRAPPA-SPARTAN collaborative CME symposia (Philip Mease and Atul Deodhar). Since 2012, GRAPPA members have collaborated with SPARTAN to initiate a series of CME symposia in cities around the United States. The content, plenary lectures, and small group breakout sessions are led by educational thought leaders from the 2 organizations. Full-day, half-day, and quarter-day formats are offered, depending on the audience, and may be standalone meetings or part of a professional meeting. Plenary lectures include reviews of disease state, epidemiology, pathophysiology, assessment, and treatment. Breakout sessions focus on

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physical examination training and ultrasound. Learning is assessed through audience response questions at the beginning and end of the program. To date, 25 symposia have been conducted, targeting regional rheumatologists, rheumatology trainees, and rheumatology-allied health practitioners. These symposia fulfill an unmet need to educate rheumatologists about numerous issues such as the expanding criteria for axial SpA, new discoveries in the pathophysiology of SpA and PsA, and emergent therapies that target cellular and cytokine pathways more specific to these conditions. GRAPPA and SPARTAN have also collaborated with ASAS (Assessment of Spondyloarthritis International Society) for 3 years, presenting a quarter-day version of this symposium at the American College of Rheumatology annual meeting.

GRAPPA-NPF collaborative CME symposia on PsA and psoriasis (Philip Mease, on behalf of the steering committee: Amit Garg, Randy Beranek, Emily Boyd, Pam Love). Since 2014, GRAPPA and the NPF have collaborated in a series of CME symposia in the United States, modeled after the collaboration of GRAPPA and SPARTAN. The full-day program includes plenary lectures, each co-presented by a rheumatologist and dermatologist, on psoriasis and PsA classification and epidemiology, clinical presentation, pathophysiology, assessment, and treatment. In addition, small group breakouts focus on physical examinations, difficult case discussions, and ultrasound. Attendees include rheumatologists, dermatologists, and trainees. Eight symposia were conducted in 2015 and more are planned for 2016.

European rheumatology and dermatology collaborative symposia (Philip Helliwell and Wolf-Henning Boehncke, on behalf of the steering committee, including Kurt deVlam and Lluis Puig). One-day educational meetings were held in several European locations in 2015, including Leeds, Antwerp, Frankfurt, Oslo, Copenhagen, Athens, and Seville, for dermatologists and rheumatologists, preferably from the same hospital, as well as physicians-in-training and specialist nurses. Attendees arrived the previous night for dinner and a short talk or quiz. The meeting day comprised talks on pathogenesis, epidemiology, clinical features, comorbidities, and treatment, delivered by local and external GRAPPA-affiliated physicians. Participants were then offered a selection of workshops covering assessment of the musculoskeletal system, skin/nails, and ultrasound. Local variations on this theme included "meet the expert" sessions. In Oslo, for example, local physicians held a roundtable discussion between dermatologists, rheumatologists, and patients to discuss the best ways of working together and delivering services in the future. A post-course quiz was held where participants provided their feedback.

Video training modules on physical examination of joints, entheses, dactylitis, spine, skin, and nails (Kristina Callis Duffin and Philip Mease). The GRAPPA Psoriasis and Psoriatic Arthritis Video Project is a set of online video modules that provide standardized training for psoriasis and PsA disease severity instruments commonly used in clinical trials and registries. This project was started in 2010 to provide accessible training to dermatologists and rheumatologists on the physical assessment of skin, nails, joints, entheses, dactylitis, and spine. The development and evolution of these modules has been described[1,2,3,4,5].

To date there are 15 available modules: 11 that provide training on various psoriasis-specific skin and nail measures, and 4 that provide training on PsA measures (Table 1). Each module consists of a video in which an expert in the field provides instruction and then actively demonstrates the examination using graphics, photographs, and video footage. The rheumatology modules include footage demonstrating the measure on volunteer patients. Most dermatology modules include a certification portion to assess proficiency. In 2015, a new physician global assessment was added, known as the 2011 Investigators Global Assessment "modified," an instrument validated and used in trials assessing secukinumab[6].

The prototype module, which reviews the Psoriasis Area and Severity Index (PASI)[7] and body surface area[8], has been the most widely accessed. An equivalency study was published that compares PASI assessments performed by patients and PASI-naive physicians to those of PASI-experienced dermatologists before and after viewing the training video[9]. At the 2015 GRAPPA annual meeting, data were presented by trainee Michael Milliken describing the PASI and physician's global assessment (PGA) training module use from 2010 through July 2013[10]. In this analysis, 934 unique participants, representing 45 different 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. Assessment of interrater reliability showed high intra- and inter-class correlation, suggesting that the modules are effective at delivering PASI training.

GRAPPA has joined with ePharmaSolutions and ePresentOnline, who provide access for GRAPPA members and for investigators with study-specific training needs required by pharmaceutical industry sponsors. GRAPPA members can access all modules through the ePharmaSolutions portal. Clinical trial investigators are provided access to sponsor-specific customized workspaces with password-protected entry depending on individual study requirements.

Treatment Recommendations (Laura Coates)

At the 2015 GRAPPA annual meeting, the Treatment Recommendations group presented the final version of the guidelines[11]. Since the previous recommendations in 2009[12], additional overarching principles for the management of PsA were added and sent to the full GRAPPA membership for feedback and endorsement. The final overarching principles

Table 1. GRAPPA Video Project: module descriptions.

Module	Description/notes
PASI and BSA	Psoriasis Area and Severity Index and body surface area: photographic examples of erythema, induration, and scale, methods of assessing area score, and BSA instruction.
6-point sPGA, v. 1	Static Physician Global Assessment, v. 1: erythema, induration, and scale assessed 0–5, then averaged and rounded to nearest whole numbers.
6-point sPGA, v. 2	Static Physician Global Assessment, v. 2: erythema, induration, scale each scored 0–5, using slightly different definitions from the National Psoriasis Foundation description.
6-point sPGA, v. 3	Static Physician Global Assessment, v. 3: erythema, induration, scale assessed and a single score of 0–5 assigned (no rounding).
5-point sPGA	5-point Static Physician Global Assessment: erythema, induration, and scale assessed individually, then averaged and rounded to nearest whole numbers.
5-point IGA 2011 "modified" (new assessment instrument)	5-point Static Investigator Global Assessment[6]: erythema, induration, and scale assessed 0–4. Certification module available (3 examples).
NAPSI	Nail Psoriasis Severity Index: describes features of matrix and nail bed psoriasis and how to perform this measure.
mNAPSI	Modified Nail Psoriasis Severity Index: description of the rationale and method.
PSSI	Psoriasis of the Scalp Severity Index: adaptation of PASI for scalp assessment.
PPPASI	Palmar-Plantar Psoriasis Area and Severity Index: adaptation of PASI for scoring palmar-plantar pustular or nonpustular psoriasis.
TPSS	Total Plaque Severity Score: assesses target plaques; scores erythema, induration, and scale.
Dactylitis and enthesitis	Dactylitis background and use of dactylometer; enthesitis background, evaluation using Leeds Enthesitis Index, MASES Enthesitis Index, the Enthesitis Skeletal exam, SPARCC Enthesitis Index, Major Enthesitis Index, and 4-point Enthesitis Index.
Synovitis	Includes joint examination and synovitis introductions, video demonstration of examining joints: TMJ, AC, SC, shoulder, wrist, hand/digits, hip, knee, ankle, foot/digits.
Axial disease assessment	Includes background and video demonstration of measuring cervical rotation, chest expansion, occiput-to-wall/tragus-to-wall distance, forward flexion, lateral bending of spine, examination of the hip.
BSA	Describes background and rationale for the handprint method of determining BSA involvement of psoriasis.

GRAPPA: Group for Research and Assessment of Psoriasis and Psoriatic Arthritis; AC: acromioclavicular; MASES: Maastricht Ankylosing Spondylitis Enthesis Score; SC: sternoclavicular; SPARCC: Spondyloarthritis Research Consortium of Canada; TMJ: temporomandibular joint.

were presented at the 2015 meeting, along with the results of the vote. Both healthcare professionals and patient research partners (PRP) endorsed all of the overarching principles with at least 80% of the vote; these data were included in the report.

The final schema and accompanying notes for treating physicians were also presented to the membership, including individual flowcharts for treatment of each of the individual domains (peripheral joints, axial disease, enthesitis, dactylitis, skin, and nail disease) developed by the domain groups from evidence during systematic literature reviews[13]. Following external peer review, the final version of the GRAPPA treatment recommendations were published in 2016[11].

Discussion was held separately at the PRP's meeting about a possible patient-oriented version of the treatment recommendations. Members of the GRAPPA PRP group will help develop this document and disseminate it once it is completed. This project is currently ongoing, with the hope that a finished product will be available early in 2016, following involvement of the European League Against Rheumatism in patient recommendations.

Development of Simple Criteria to Identify Inflammatory Musculoskeletal Disease (Philip Mease)

As reported, GRAPPA members have undertaken a research initiative to develop simple criteria for the reliable identification of inflammatory arthritis, enthesitis, dactylitis, and spondylitis[14]. This initiative is partially modeled after a similar exercise by ASAS to develop criteria for the definition of inflammatory back pain[15]. GRAPPA intends to develop a similarly simple set of items that can be applied by a healthcare practitioner when taking the patient's history and performing physical examinations.

In the first phase of the project, a nominal group exercise was conducted at the 2014 GRAPPA meeting[14], where breakout groups focused on the domains of arthritis, enthesitis, dactylitis, and spondylitis and listed key words, phrases, or concepts that define these domains, to help distinguish inflammatory from noninflammatory forms. Now that grant funding is finalized, a series of patient focus groups will be moderated by a skilled group leader. Transcripts from these meetings will be analyzed to identify the patient's experience of arthritis, enthesitis (tendonitis), dactylitis, and spondylitis (back pain). Separate focus groups will comprise patients with inflammatory disease and patients who have noninflammatory arthritis, tendon, or back pain, such as osteoarthritis (OA) and fibromyalgia. Research assistants who are skilled in focus group technique and analysis will compile a list of key words/concepts generated by the patients. Separate Delphi exercises will then be conducted to compare the list from the nominal group exercise with the patient list and reconcile the lists into test sets of criteria for application in patient groups.

In the second phase, a group of expert clinicians will

examine patients with inflammatory and noninflammatory arthritis, tendonitis, and back pain, and determine which of the history and physical examination features yield the highest sensitivity and specificity for defining inflammatory disease.

Finally, a third, validating step will apply the top-ranked criteria sets to a large group of patients with inflammatory musculoskeletal disease (including PsA and RA), compared with control groups of patients with other diseases (e.g., OA, traumatic or degenerative tendonitis), to identify which criteria sets are most discriminative and practical to use in a simple screening algorithm. Validation will be performed in prospectively evaluated patients in clinics where patients with inflammatory arthritis are seen.

Patient and Physician Perspective on PsA and Its Effect – Similarities and Discrepancies (Philip Mease)

A new GRAPPA project is under way that involves patient focus groups, physician nominal group exercise, and both patient and physician Delphi exercises to accomplish 3 goals:

1. To ascertain the degree of similarity and difference between patient and physician perception of the experience of PsA, including the key domains of the disease and their effects on function and quality of life.
2. To contribute patient and physician input about PsA core domains to the ongoing OMERACT core set project.
3. To have patients review and evaluate patient-reported outcome measures (PRO) to determine their meaningfulness, during patient focus groups.

The co-principal investigators for this project are Philip Mease and Dan Furst (Seattle, WA, USA), with members of GRAPPA, including PRP, comprising the steering group. Patient focus groups (6 to 8 patients each) will be conducted in Seattle (Mease and Furst), Cleveland (Elaine Husni), and Baltimore (Ana Maria Orbai).

Experienced leaders will conduct the focus groups in a structured, audiotaped, and transcribed conversation to determine the key features of PsA and their effect on function and quality of life for each patient. Using software to analyze the transcripts and list the key words, phrases, and concepts that encompass the focus group's experience of PsA, a list of disease-defining elements (e.g., joint pain, rash, fatigue, embarrassment at work) will be developed and used in a subsequent Delphi exercise with patients. Patient demographics, disease activity, effect, and treatment will be assessed to correlate with perceptions of disease.

Additionally, patients will review and comment on copies of PRO used in clinical trials to measure physical function, quality of life, fatigue, and work productivity (e.g., the Health Assessment Questionnaire, the Medical Outcomes Study Short Form-36, fatigue measures) to assess their perception of the validity, quality, and feasibility of the questions. Many of these measures were developed in other diseases, e.g., rheumatoid arthritis (RA), or for diseases in general, and their applicability to PsA has not been formally evaluated. Further, some may have been developed with little patient input. The US Food and Drug Administration and disease investigators, including members of GRAPPA, are interested in the patient perspective on PRO instruments. Thus, after focus group leaders guide patients through review, discussion, and evaluation of the PRO, the results will be summarized in report form for researchers and members of regulatory agencies.

Physician exercises will be held in parallel to patient focus groups. A steering group of 9 GRAPPA member physicians will develop a list of elements that they consider comprise the disease expression and effect of PsA (e.g., enthesitis, psoriasis, nail disease, inability to work), which will constitute the element list evaluated in a Delphi exercise.

About 100 patients will participate in a 3-round Delphi process. Both the original focus group patients as well as additional patients recruited from the focus group centers will be asked to prioritize the list of elements identified in focus groups by distributing 100 points among them — more points for more important ones, fewer for less important ones. After the first round, patients will see the overall scores generated by all patients and compare these to their own voting. In subsequent rounds of the exercise, they may adjust their scoring if influenced to do so by seeing how others voted. A similar process will be conducted among the 9 expert physicians using the element list they generated. In addition, 10 clinical rheumatologists who are not expert in PsA will be recruited to do a Delphi exercise with the element list to ascertain whether non-expert rheumatologists consider the PsA elements in a similar or different manner from expert clinicians.

Ultimately, the outcome of the patient Delphi will be compared and contrasted to the physician Delphi to determine the similarities and differences in how patients and physicians perceive the disease, including the most important aspects of disease expression and which domains most affect patients. In similar studies in other disease states, differences between physician and patient perspectives have encouraged physicians to more sensitively address the areas considered important by patients (e.g., fatigue, physical intimacy), and have encouraged patients to be more understanding toward their physician's focus on issues that they do not consider immediately important (e.g., imaging to assess structural damage). Along with demonstrating the relative importance of various disease manifestations and effects to patients and physicians, the outcome of the Delphi exercises will also be used to inform and validate the GRAPPA OMERACT project to revise the PsA core set and outcome measure standardization for PsA clinical trials[16]. This collaboration is possible because the Delphi project and OMERACT project use similar methodology.

Update in PsA BIODAM (Oliver FitzGerald)

GRAPPA has long identified the need to develop a key biomarker(s) with the potential to predict joint damage

(erosion) in PsA. PsA is often a progressive erosive disease with about 50% of patients developing erosions within 2 years[17]. In addition, severe radiographic phenotypes (mutilans) with osteolysis may develop in 5%–10% of patients, whereas 15%–50% may not develop joint damage[18,19]. There is an urgent need to develop a reliable biomarker of joint damage that would assist both in early identification of those patients likely to progress as well as those who are progressing despite therapy.

There are several clinical predictors of radiographic progression including the number of tender, swollen, and damaged joints, dactylitis, and the erythrocyte sedimentation rate[20,21,22,23]. Followup studies from clinical trials have also shown that inflammatory burden predicts damage; for example, in the Adalimumab Effectiveness in PsA Trial, systemic inflammation in PsA, as indicated by elevated baseline C-reactive protein, was the only strong independent predictor of radiographic progression[24]. Studies have shown that early diagnosis and management of patients with PsA prevents joint damage progression. In addition, patients treated within 2 years of diagnosis have less damage progression than those treated 2 years after diagnosis[25]. Delayed diagnosis of more than 1 year is significantly associated with the development of arthritis mutilans (OR 2.66, p = 0.050), lower chances of achieving drug-free remission (OR 0.44, p = 0.04), worse physical component of quality of life (OR 1.05, p = 0.001), and worse functional disability as reflected by Health Assessment Questionnaire scores (OR 2.11, p = 0.008)[26].

A number of candidate serum biomarkers of joint damage in PsA have been proposed (Table 2) but none have been validated. Further, it is unlikely that a single biomarker level will correlate in a sufficiently sensitive and specific manner to predict a longitudinal outcome measure such as joint erosion. Much more likely, a group or panel of biomarkers will act together to predict such outcomes given the complexity of the biological process involved. A multibiomarker disease activity score predicting radiographic progression in rheumatoid arthritis (SWEFOT trial) provides precedence for this concept[27]. In PsA, a panel of synovial membrane-derived proteins was able to predict response to both anti-TNF therapy (adalimumab) and abatacept[28]. While this proof-of-concept study shows significant potential for such a multibiomarker panel, it requires a synovial biopsy, which makes it unlikely that it will have clinical application. Therefore, the development of a biomarker panel applicable to a more accessible biological fluid such as serum is certainly required (Table 2)[29,30,31,32].

Table 2. Potential biomarkers of joint damage.

Type	Potential Marker
Markers of inflammation	CRP; hsCRP, SAA[29]
Markers of collagen breakdown	C2C, C1–2C, and CPII levels[30]
Bone turnover[31,32]	
Wingless signaling pathway	Dickkopf-1, sclerostin
Osteoblast activity	bone alkaline phosphatase, osteocalcin
Osteoclast activity	CTX-II, CTX-I, RANKL, OPG
Proteolytic enzymes	MMP-3

CRP: C-reactive protein; hsCRP: high-sensitivity CRP; SAA: serum amyloid A; C2C: collagen 2 degradation; CPII: collagen 2 formation; CTX: collagen cross-linked C-telopeptide; RANKL: receptor activator of nuclear factor-κB ligand; OPG: osteoprotegerin; MMP-3: matrix metalloprotease-3.

GRAPPA investigators have designed the biomarker development project and have chosen a contract research organization. Although sufficient funding to support this important project has not been secured, it is apparent that funding opportunities will improve once evidence for candidate biomarkers is available.

Two approaches are currently being taken to move the project forward:

1. GRAPPA is collaborating with pharmaceutical companies whose current and future randomized controlled trials include appropriate clinical and radiographic measures. Discussions are ongoing, but it is hoped to gain access to biosamples (blood/urine/DNA) that have also been obtained at various timepoints.
2. Individual GRAPPA investigators (Toronto/Leeds) are conducting investigator-initiated studies that use changes seen on magnetic resonance imaging instead of plain radiographic imaging, and correlating these changes with levels of known biomarkers. A discovery arm using "omic" technologies is also planned for these studies. These technologies, which include the study of proteins (proteomics) associated with a given disease or disease state, are powerful new technologies capable of providing quantitative information on levels of multiple proteins, all measured in the same tiny blood sample. It is quite possible that a panel of such proteins will be much more sensitive and specific for identifying patients likely to progress on radiograph and thus likely to require more intensive treatment.

It is hoped that results from these initiatives will begin to emerge in 2016/2017, providing the GRAPPA community with essential information with which to move forward to a larger scale validation study.

Publications Committee (Dafna D. Gladman)

The GRAPPA Publications Committee is responsible for soliciting the manuscripts from the annual meeting, as well as reviewing them before submission for publication. With the help of Linda Melvin, our editor, this process seems to run smoothly. What follows is a summary of articles GRAPPA has published based on presentations at its annual meetings since 2010.

At the annual meeting of GRAPPA in Miami, Florida, USA, December 9–11, 2010[33], articles covered these topics: a pre-meeting trainees symposium; the development of composite measures for PsA; an ultrasound imaging module;

the current status and future perspectives of magnetic resonance imaging in PsA; the need to define musculoskeletal inflammation; distinguishing inflammatory from noninflammatory arthritis, enthesitis, and dactylitis in PsA; inflammatory spinal disease in PsA; the Psoriasis and PsA Video Project; strategies for biomarker development in psoriatic disease; biomarkers in PsA; the genetics of psoriasis and PsA; and opportunities for global partnerships and the challenges of psoriasis and PsA in Latin America.

At the annual meeting of GRAPPA in Naples, Italy, July 7-9, 2011[34], 10 articles were presented, on these topics: the pre-meeting trainees symposium; biomarkers of radiographic progression in PsA; biomarkers for comorbidities in psoriasis; the GRAPPA Responder Index Project (GRACE); the Psoriasis and PsA Video Project; PsA and psoriasis projects in Italy; exploring priority research areas in psoriasis and PsA from dermatologists' perspective; proceedings from the ultrasound imaging module; defining musculoskeletal inflammation; and psoriasis and PsA in Peruvian aborigines.

At the annual meeting of GRAPPA in Stockholm, Sweden, June 25-27, 2012[35], 15 articles were presented, on these topics: the fellows symposium adjacent to the European Academy of Dermatology and Venerology Meeting, Verona, Italy, 2012; the pre-meeting GRAPPA trainees symposium 2012; arthritis mutilans; outcome measures for psoriasis severity; dermatology screening tools; psoriasis outcome measures; cardiovascular comorbidities of psoriasis and PsA; infectious, oncologic, and autoimmune comorbidities of psoriasis and PsA; development of simple clinical criteria for the definition of inflammatory arthritis, enthesitis, dactylitis, and spondylitis; overlaps and distinctions of peripheral SpA and PsA; ultrasound imaging; the biomarkers project; the Psoriasis and PsA Video Project; and the GRAPPA educational initiatives.

At the annual meeting of GRAPPA in Toronto, Ontario, Canada, July 11-14, 2013[36], 14 articles were presented, on these topics: the fellows symposium adjacent to the European Academy of Dermatology and Venereology Congress, Istanbul, 2013; the pre-meeting GRAPPA trainees symposium; patient participation in psoriasis and PsA outcome research; composite disease activity and responder indices for PsA (development of cutoffs for both disease activity states and response); bone formation in PsA; psoriatic enthesitis; basic/translational/clinical science on comorbidity monitoring; the International Dermatology Outcome Measures Initiative as applied to psoriatic disease outcomes; the Brigham Scalp Nail Inverse Palmoplantar Psoriasis Composite Index; psoriasis and PsA educational initiatives; rheumatology updates, including the PsA Biomarker Project, arthritis mutilans, and the PsA-Peripheral Spondyloarthritis Epidemiology Project; and development of criteria to distinguish inflammatory from noninflammatory arthritis, enthesitis, dactylitis, and spondylitis.

In addition to articles based on annual meetings, GRAPPA members in 2014 published several systematic reviews of the literature pertaining to the treatment of psoriasis and PsA in preparation for updated GRAPPA treatment recommendations[13]. The subjects of these reviews included drug therapies for peripheral joint disease in PsA; updated guidelines for the management of axial disease in PsA; treatment effectiveness and outcome measures for enthesitis in PsA; comprehensive treatment of dactylitis in PsA; the safety and efficacy of therapies for skin symptoms of psoriasis in patients with PsA; a review of treatments for nail psoriasis; and managing comorbidities and extraarticular manifestations in patients with PsA.

After the annual meeting of GRAPPA in New York, July 9-11, 2014[37], 11 articles were presented, on these topics: a fellows symposium adjacent to the Swiss Psoriasis Day, Geneva, 2014; the pre-meeting GRAPPA trainees symposium; building bridges between researchers and PRP; the International Dermatology Outcome Measures Group; a comprehensive assessment tool for psoriasis; the Psoriasis Symptom Inventory (a PRO measure of psoriasis severity); treat-to-target and improving outcomes in psoriasis; development of simple clinical criteria for the definition of inflammatory arthritis, enthesitis, dactylitis, and spondylitis; utility in clinical trials of magnetic resonance imaging for PsA; the PsA Working Group at OMERACT 12; the GRAPPA Treatment Recommendations Group; and psoriasis and PsA educational initiatives.

As can be noted from the meeting dates and the related publication dates, publications are earlier in later years, suggesting that manuscripts are prepared and submitted in a timely manner. Moreover, the publications have increased in size and content, reflecting the rich content of the meetings themselves. Further, GRAPPA members, primarily rheumatologists and dermatologists, are contributing to the various publications. Thus, GRAPPA is achieving its objective of disseminating information among participants and providing efficient knowledge transfer of its activities.

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