

Rheumatology Conference Highlights

75th Annual Meeting of the American College of Rheumatology and the 46th Annual Meeting of the Association of Rheumatology Health Professionals

Chicago, IL, USA, 5–9 November 2011

The meetings of the American College of Rheumatology (ACR) and Association of Rheumatology Health Professionals (ARHP) are amongst the largest and best attended international conferences in the rheumatology calendar. The 2011 ACR/ARHP conference alone showcased over 2500 abstracts and was attended by over 16,000 people. This article will highlight key abstracts presented at the most recent meetings that are of particular relevance for UK clinical practice, and introduce an initiative to increase accessibility of the latest research presented at international rheumatology conferences.

Keeping abreast of the latest developments in rheumatology should be the goal of the entire rheumatology healthcare community. However, there are several factors making it difficult for practicing healthcare professionals to attend international rheumatology meetings. Time constraints imposed by clinical commitments and the number of available travel bursaries are two such factors, the latter of which is of particular relevance for attendance at US-based meetings such as the ACR/ARHP 2011. Even when it is possible to attend international rheumatology conferences, the overwhelming amounts of clinical and scientific data presented each year make it a challenge for attending rheumatology healthcare professionals not only to make their way around the hundreds of posters and presentations, but also to determine which data are most relevant to their clinical practice.

As such, a need was clearly identified to bring a selection of the latest research presented at international rheumatology conferences back to the attention of healthcare professionals in an easily digestible format. Many conferences are beginning to address this issue by providing a generic overview of the conference via their

websites, but the project I have been involved in for the past 3 years aims to add a little more value. Rheumatology-Congress.co.uk provides conference highlights (in the form of filmed interviews) for UK healthcare professionals as well as an explanation as to why the data selected are important for clinical practice [101]. Since its initiation in 2009, the program has become an expected and much anticipated part of the rheumatology calendar, providing a searchable database of interviews focused on the most notable clinical and practice-oriented research presented at the meetings, made relevant for a UK rheumatology audience.

The project

The project is executed by a Faculty of leading UK rheumatologists and a specialist rheumatology nurse, and is sponsored by Roche Products Ltd UK and Chugai Pharma UK Ltd. Over 200 filmed interviews have been undertaken to date with authors from all around the world, providing a snapshot of those working at the forefront of rheumatoid arthritis research.

Prior to each congress, the Faculty independently selects conference program categories and abstracts that we feel are clinically relevant and of interest to UK rheumatology healthcare professionals. The wide spectrum of categories chosen from the 2011 conference included: Rheumatoid Arthritis – Human Etiology and Pathogenesis; Rheumatoid Arthritis Treatment – Small Molecules; Biologics and Gene Therapy; T-cell Biology and Targets in Autoimmune Disease; and Imaging of Rheumatic Diseases as well as categories relevant to allied healthcare professionals including Epidemiology and Public Health and Health Services Research.

As a Faculty, we endeavor to provide an overall picture of the most clinically relevant

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research that has been presented at the congress, deliver well-rounded commentary on our selected abstracts and give personal insights during interviews. The filmed interviews aim to replicate the type of interaction you might experience at poster sessions during a conference, asking the questions that delve deeper into the abstract data.

Research highlights

At the end of the conference, the Faculty met to discuss favorite areas of research – these are often referred to as the ‘highlights of the highlights’ and always provoke interesting debates.

This year’s summary focused initially on etiological factors for rheumatoid arthritis. In addition to smoking, there are suggestions that air pollution plays a role, and an emerging concept focuses on periodontal disease, particularly the presence of the organism *Pseudomonas gingivalis*. This organism is common in individuals with poor dental hygiene and has the capability to citrullinate proteins [1,2]. This has proved to be a complex story but data suggest that periodontal disease may be an independent risk factor for rheumatoid arthritis, as well as synergizing with the known risk factor of smoking. With an estimated 10 million adults in Britain smoking cigarettes [102], these data are clearly of relevance to clinical practice amongst the UK rheumatology community, as well as having potential public health implications [3].

The faculty then turned its attention to clinical outcomes of treatment. Outcome has increasingly been shown to reflect suppression of inflammation over time, and research groups have been analyzing emerging tools that aim to more sensitively measure inflammation. Such research includes investigations into the use of ultrasonography [4]. Hammer *et al.* have studied power Doppler signals in the synovium and propose that this is a key marker of inflammation and also an early identifier of responders to biologic treatments, such as anti-TNFs [5]. There was also discussion around the new remission criteria, which are more stringent than existing assessments such as disease activity score 28 (DAS28) [103]. However, it is essential that we continue to balance the benefits with the potential toxicities of therapy as we strive for even tighter control of rheumatoid arthritis.

Biosimilars also sparked extensive debate amongst the Faculty this year, specifically the potential complications that could accompany

attempts to replicate patented biologics. Unlike creating exact copies of small molecule drugs (generics), knowledge of the DNA sequence that encodes a biologic is not enough to recreate an identical copy, because many other factors influence their activity, such as the sugars attached to the antibody and other features of the biologic molecule that are less clearly defined. The biosimilar products therefore require extensive analysis, and the rigor with which these alternatives must be tested may decrease their economic benefit. Furthermore, when these alternative treatments are introduced into clinical practice, clinicians should consider them as they would any other new biologic, and submit appropriate data to biologic registries. This will ensure we capture rare but unexpected adverse effects and other factors that might influence efficacy, such as altered immunogenicity compared with the ‘parent’ biologic.

It is a challenge to whittle down the wealth of new research to three or four key areas, but we, as the Faculty, hope we have succeeded in summarizing some of the most important and clinically relevant data presented. As an active researcher myself, I find the opportunity to discuss such topical research, as well as learn of new developments in rheumatoid arthritis, extremely valuable.

Summary

The importance of keeping up to date with current research and new developments in such a fast-moving research field as rheumatoid arthritis cannot be underestimated. We therefore hope that the Rheumatology-Congress.co.uk educational initiative will help ensure that the rheumatology healthcare professional community is kept abreast with clinically relevant research, regardless of whether they are in attendance at conferences or not [101].

Financial & competing interests disclosure

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