Advances in axial spondyloarthritis: learning from the leaders

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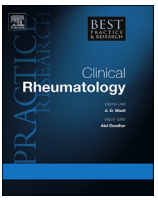
Best Practice & Research Clinical Rheumatology 37 (2023) 101877

Contents lists available at ScienceDirect

Best Practice & Research Clinical Rheumatology

journal homepage: www.elsevierhealth.com/berh



Preface

Advances in axial spondyloarthritis: Learning from the leaders

Marking half a century since the identification of HLA-B27 and the founding of the spondyloarthritis concept, we have ample reasons to celebrate. We reached out to experts in the domain to provide insights into the progress we've made and the future directions in axial spondyloarthritis (axSpA) research and treatment. Our primary focus centered on the evolving landscape of patient care in the field of axSpA.

Marleen van de Sande and Dirk Elewaut set the stage by taking a deep dive into our current understanding of the immunopathogenesis of axSpA. The opening chapter connects genetic risk, microbiome changes, the gut-joint axis and mechanical factors that culminates in the activation of pathological immune responses in axSpA.

In addition to deciphering pathways driving pathogenesis, equally challenging is making an accurate diagnosis of axSpA among the large number of patients presenting with back pain. This is one of the most essential steps in clinical practice and despite major advances in our knowledge, it remains a challenge. Floris van Gaalen and Martin Rudwaleit discuss pitfalls to avoid when diagnosing axSpA, share advice on how to build diagnostic skills and discuss new developments that may help facilitate the diagnosis of axSpA in the future. A detailed view on the issue of diagnosis delay in axSpA is provided by Rosemarie Barnett, Karl Gaffney and Raj Sengupta. They present a comprehensive overview of strategies to reduce diagnostic delays in axSpA, encompassing education, training, and referral methodologies.

In an informative review, Manouk de Hooge, Torsten Diekhoff and Denis Poddubnyy provide pragmatic guidance on optimizing MRI as a diagnostic tool for axSpA. They emphasize the technology's high sensitivity and suggest that newer MRI sequences, like cartilage-sensitive ones, can further refine diagnostic specificity. Kelly Di Dier and colleagues highlight that CT scans continue to be the go-to imaging method for spotting structural changes in the condition. Advances such as low-dose CT coupled with AI-powered reconstruction methods not only minimize radiation exposure but also preserve diagnostic accuracy.

The treatment of axSpA lies at the center of our daily clinical practice. Xenofon Baraliakos and colleagues provide a treatment overview of axSpA, covering non-pharmacological and pharmacological treatment, including NSAIDs and b/tsDMARDs, while ensuring alignment with the most recent ASAS-EULAR recommendations. Stopping or at least slowing the relentless progression of the disease process is an important outcome for us. Disease progression may happen on multiple fronts. Lianne Gensler and Barry O'Shea discuss assessment and risk factors for radiographic progression in axSpA. In this highly informative review they go on to analyze the evidence supporting structural modification ability or lack of for currently approved therapies in axSpA. In the past few years, we have accumulated

https://doi.org/10.1016/j.berh.2023.101877

knowledge and experience with tapering of bDMARDs in this patient population, which is now beautifully summarized by Zuzanna Lukasik, Philippe Carron and Casper Webers. One of the main take home messages is that tapering of TNFi can be considering in patients with axSpA in sustained remission or low disease activity, as it is not inferior to full-dose continuation.

Philipp Bosch, Steven Zhao and Elena Nikiphorou draw our attention to the high risk of comorbidities in patients with SpA, such as cardiovascular disease, osteoporosis and depression. While high disease activity in SpA is associated with multiple comorbidities, addressing it can have a positive impact on comorbidities, whereas conversely managing comorbidities can improve disease activity.

In the realm of pregnancy, Sinead Maguire and Anna Molto provide clinicians with actionable advice on managing pregnancy in patients with SpA, who tend to experience higher rates of preterm births, pre-eclampsia, and caesarean sections. Samantha O' Kohn et al., tackle the sex and gender differences in axSpA. Their insightful chapter sheds light on how the clinical and radiographic symptoms manifest differently in females, often leading to delayed diagnosis. The chapter also discusses how men and women exhibit differing responses to current treatments, drawing from both clinical trials and real-world data.

The last word is given to an overview on the diagnosis and management of peripheral SpA. As described by María Ángeles Puche-Larrubia, Clementina Lopéz-Medina and Nelly Ziade, recent global cohorts like perSpA have enriched our knowledge of peripheral SpA. Enthesitis represents a common feature of peripheral SpA, with IL-23 playing a key role in the development of this manifestation.

We trust you'll find as much enjoyment in reading this issue as we did in assembling it. Our heartfelt gratitude goes out to the authors for their significant contributions, making this issue invaluable for both clinicians treating patients with spondyloarthritis and researchers focused on this field.

Conflict of interest

None.

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19 October 2023