

## CORRESPONDENCE

## Correspondence on: The effects of physical exercise on axial spondyloarthritis – a systematic review

Pimentel G<sup>1</sup>, Duarte-Fernandes R<sup>2</sup>, Ferreira RJO<sup>3</sup>

Dear Editor,

With great interest, we read the article by Gonçalves et al.<sup>1</sup> that delves into the impact of physical exercise on people with axial spondyloarthritis (axSpA). The authors analysed data from 24 randomized clinical trials conducted between 2000 and 2021, involving a total of 1916 axSpA patients. The review supports the potential of exercise as a non-pharmacological therapeutic option for axSpA management, emphasizing its safety, although advising cardiovascular screening before exercise initiation, particularly if high-intensity modalities are chosen. We agree with Gonçalves *et al.*<sup>1</sup> as they underline the need for further research to refine exercise guidelines, and promote sustained adherence to exercise programs, which aligns with the current challenges in prescribing and maintaining exercise therapy in this patient population.

The Assessment of SpondyloArthritis International Society (ASAS)-European League of Associations for Rheumatology (EULAR) recommendations for the treatment of axSpA<sup>2</sup> have been updated over the years to reflect the evolving understanding of the condition and the best practices for managing it. The 2022 update, particularly Recommendation 4, focuses on non-pharmacological treatments, highlighting the importance of education and exercise, essential to promote patient empowerment<sup>2</sup>. Regular exercise, particularly when supervised, can lead to improved outcomes and a better overall quality of life.

Nevertheless, promoting exercise in many medical conditions raises some concerns, primarily centred on

Accepted: 25/02/2024

**Correspondence to:** Georgina Alexandra Pimentel E-mail: georginaapimentel@gmail.com

the frequency and intensity of exercise, which relates to the "cardiovascular screening" caution. However, physically inactive individuals face an overall higher risk of experiencing acute cardiac events compared to their physically active counterparts because the absolute risk of acute cardiac events associated with exercise is extremely low<sup>3</sup>, the reason why it is better not to be "afraid".

This paper states that a key aspect of patient adherence is the setting in which exercise takes place (home, hospital or other fitness locations) as the choice can have a significant impact on overall outcomes and safety, but regardless of the location, supervision by a qualified healthcare professional is a crucial strategy to elevate patient adherence and safety<sup>4</sup>, including education, correction of exercise techniques, monitoring, and providing emotional support while engaging exercises in a secure setting. Healthcare professionals can educate patients on appropriate exercise activities and, crucially, tailor these recommendations to the individual patient's needs, considering various barriers and facilitators such as personal motivation and self-efficacy<sup>4,5</sup>.

Every exercise regime needs planning, incorporating aspects such as frequency, intensity and duration<sup>6</sup>. In addition, considerations should extend to training specificity, overload, progression, initial values, reversibility and the principles of diminishing returns<sup>6</sup>. But it is important to understand where can patients with axSpAget personalised advice and guidance regarding their exercise routines. People with axSpA can ask for recommendations from their rheumatologists on where to seek such support. However, it remains uncertain whether specialized centres and qualified professionals are readily accessible to meet the unique needs of patients seeking guidance in this domain. Addressing these concerns is crucial in ensuring that patients receive comprehensive and effective care, considering both the type and intensity of exercise, as well as the availability of guidance and support from knowledgeable professionals and specialized centres.

High-intensity aerobic exercise is often recommended for treatment<sup>4</sup>. However, it's important to note that some of the most popular exercises mentioned in the literature, such as *Tai Chi* and *Pilates*, while beneficial for aerobic and mobility functions, may not be suitable for strength training and are rarely performed at

<sup>&</sup>lt;sup>1</sup> Rheumatology Department, Unidade Local de Saúde de Coimbra, Coimbra, Portugal; Nursing Research, Innovation and Development Centre of Lisbon (CIDNUR), Nursing School of Lisbon (ESEL), Lisbon, Portugal; <sup>2</sup> Leeds Institute of Rheumatic and Musculoskeletal Medicine, University of Leeds, United Kingdom; <sup>3</sup> Nursing Research, Innovation and Development Centre of Lisbon (CIDNUR), Nursing School of Lisbon (ESEL), Lisbon, Portugal; Environmental Health Institute (ISAMB), Medicine School of University of Lisbon, Lisbon, Portugal; Rheumatology Department and Nursing Research Unit (NIE), Unidade Local de Saúde de Coimbra, Coimbra, Portugal; Health Sciences Research Unit: Nursing (UICISa:E), Nursing School of Coimbra, Coimbra, Portugal **Submitted:** 24/02/2024

high-intensity levels, as shown by Hilberdink *et al.*<sup>4</sup>. Therefore, patients should be educated about alternative exercise activities that incorporate high-intensity strength exercises<sup>4,5</sup>.

It is also very important to understand the differences between men and women with AxSpA<sup>7</sup>. A study carried out in Portugal showed that recognising these differences allows healthcare professionals to make more accurate diagnoses and create personalised treatment plans to meet the unique needs of each patient<sup>8</sup>.

Another important aspect is the inclusion of kinesiophobia in our scientific discussions, especially when it comes to people suffering from chronic pain. Kinesiophobia often arises when a person experiences painful or traumatic events, leading them to become overly cautious and refrain from participating in physical exercise<sup>9</sup>. Assessing kinesiophobia at the start of a rehabilitation programme using assessment tools can help identify it and intervene at an early stage.

The investigation from Gonçalves *et al.*<sup>1</sup> emphasizes the vital importance of exercise as an additional therapeutic approach in the range of treatments for axSpA. It is essential for healthcare professionals, working closely with a coordinated multidisciplinary team, to consider integrating exercise as a fundamental part of the overall care plan.

## REFERENCES

 Pina Gonçalves N, Emília Santos M, Silvério-António M, Donato H, Pimentel-Santos FM, Cruz E. The effects of physical exercise on axial spondyloarthritis - a systematic review ARP Rheumatology 2023;3:247-264.

- 2. Ramiro S, Nikiphorou E, Sepriano A, et al. ASAS-EULAR recommendations for the management of axial spondyloarthritis: 2022 update. Ann Rheum Dis. 2023 Jan;82(1):19-34. https://doi.org/10.1136/ard-2022-223296
- Riebe D, Franklin BA, Thompson PD, et al. Updating ACSM's Recommendations for Exercise Preparticipation Health Screening [published correction appears in Med Sci Sports Exerc. 2016 Mar;48(3):579]. Med Sci Sports Exerc. 2015;47(11):2473-2479. https://doi.org/10.1249/MSS.00000000000664
- 4. Hilberdink B, Carbo M, Paap D, et al. Differences in characteristics, health status and fulfillment of exercise recommendations between axial spondyloarthritis patients with and without supervised group exercise. Semin Arthritis Rheum. 2022 Aug;55:152035.

https://doi.org/10.1016/j.semarthrit.2022.152035

- van Wissen M, Gademan M, Vliet Vlieland T, et al. Physical therapy in patients with rheumatoid arthritis and axial spondyloarthritis: the patients' perspective. Scand J Rheumatol. 2023 May 4:1-10. https://doi.org/10.1080/03009742.2023.2195726
- Metsios GS, Brodin N, Vlieland TPMV, et al. Position Statement on Exercise Dosage in Rheumatic and Musculoskeletal Diseases: The Role of the IMPACT-RMD Toolkit. Mediterr J Rheumatol. 2021;32(4):378-385. Published 2021 Dec 27. https://doi.org/10.31138/mjr.32.4.378
- 7. Cunha RN, Vieira-Sousa E, Khmelinskii N, et al. Sex differences in axial spondyloarthritis: data from a Portuguese spondyloarthritis cohort. ARP Rheumatol. 2022;1(1):42-48.
- Rusman T, van Vollenhoven RF, van der Horst-Bruinsma IE. Gender Differences in Axial Spondyloarthritis: Women Are Not So Lucky. Curr Rheumatol Rep. 2018;20(6):35. Published 2018 May 12. <u>https://doi.org/10.1007/s11926-018-0744-2</u>
- Courbalay A, Jobard R, Descarreaux M, Bouvard B. Direct and Indirect Relationships Between Physical Activity, Fitness Level, Kinesiophobia, and Health-Related Quality of Life in Patients with Rheumatic and Musculoskeletal Diseases: A Network Analysis. J Pain Res. 2021;14:3387-3399. Published 2021 Oct 28. https://doi.org/10.2147/JPR.S323424