

Poster Presentation 50th International Society for the Study of the Lumbar Spine Annual Meeting 2024

Days

Monday, 27th May (/days/2024-05-27)

Tuesday, 28th May (/days/2024-05-28)

Wednesday, 29th May (/days/2024-05-29)

Thursday, 30th May (/days/2024-05-30)

Friday, 31st May (/days/2024-05-31)

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Current Knowledge on the Different Characteristics of Back Pain in Adults with and without Scoliosis: A Systematic Review (#243)

Fabio Zaina¹, Rosemary Marchese², Sabrina Donzelli¹, Claudio Cordani^{3 4}, Carmelo Pulici¹, Jeb McAviney², Stefano Negrini^{3 4}

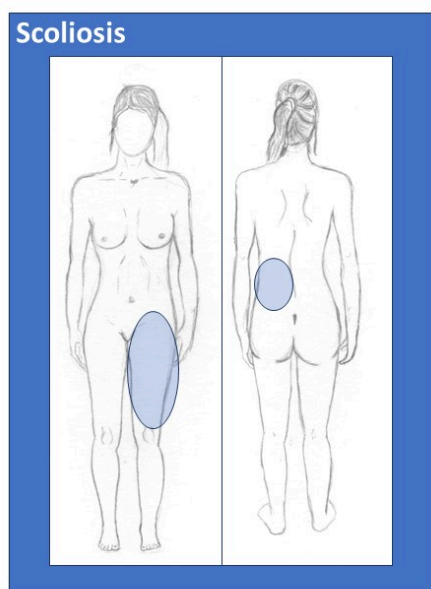
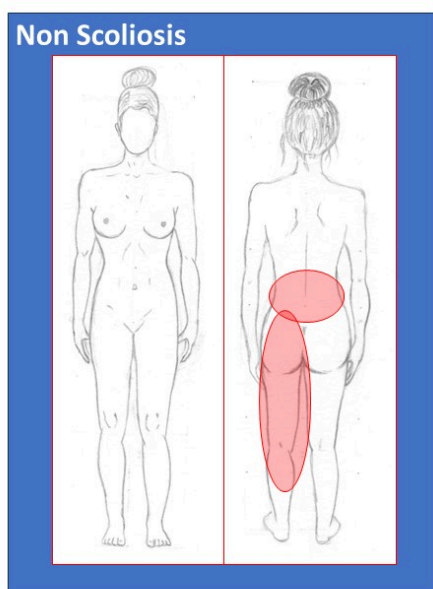
1. ISICO, Milan, Italy

2. ScoliCare, Sydney, Australia

3. Department of Biomedical, Surgical and Dental Sciences, University "La Statale", 20122 Milan, Italy; , Milan, Italy

4. IRCCS Istituto Ortopedico Galeazzi, Milan, Italy

Pain localisation



Scoliosis patients:

Need to change position
Limitation in sitting and standing
Limitation in lifting
Limitation in travels

Introduction

Patients with scoliosis have a high prevalence of back pain (BP). It is possible that scoliosis patients present with specific features when experiencing back or leg pain pathology. The aim of this systematic review is to report the signs, symptoms and associated features of BP in patients with scoliosis compared to adults without scoliosis during adulthood.

Methods

From inception to 15th May 2023, we searched the following databases: PubMed, EMBASE, Cumulative Index to Nursing and Allied Health Literature (CINAHL), Scopus.

The outcomes of interest are the signs, symptoms and associated features of BP and LBP in adults with and without scoliosis. Pain-related outcomes may include but are not limited to intensity, duration, type, location, onset and triggering factors/positions, relieving factors/positions, and time-related behaviour. Associated features may include but are not limited to patient demographics (gender, age, occupation), number of pregnancies, family history of scoliosis and pain, Cobb angle, number of curves, types of curve and X-ray features, e.g., osteoporosis, rotationalolisthesis.

We tabulated the characteristics of the included studies for comparison. We intended to assess for heterogeneity (e.g., visually, using I^2 or the χ^2 test) and, if possible, include a prevalence meta-analysis with weighted proportions. However, due to the small number and some limitations of the included studies, we performed a narrative synthesis with frequencies because the meta-analysis was not applicable.

Results

We found 10,452 titles, selected 25 papers for full-text evaluation and included 8 in the study.

The total number of scoliosis patients was 727, and the controls were 1590.

Three studies included a larger number of adults with scoliosis and healthy controls but were included because they presented data for the subgroup of patients with BP.

Five studies focused on LBP, while the other three reported on BP, including both thoracic and lumbar or without giving details on the location.

We found that scoliosis presents with asymmetrical pain, most often at the curve's apex, eventually radiating to one leg. Radiating symptoms are usually localised on the front side of the thigh (cruralgia) in scoliosis, while sciatica is more frequent in non-scoliosis subjects. These radiating symptoms relate to rotationalolisthesis. The type and localization of the curve have an impact, with lumbar and thoracolumbar curves being more painful than thoracic.

Adults with scoliosis and BP showed a more frequent need to change position, with limitations in standing and sitting for a long time. Patients with curves larger than 40° also showed limitations in walking, and those with curves between 20° and 40° had limitations in lifting and travelling. Issues related to social activity, personal care and the need for pain control were similar among the two groups.

Discussion

Pain in adults with scoliosis and BP seems to present specific features. Its localization, usually asymmetrical and associated with cruralgia, was the most specific feature. It remains unclear whether pain intensity and duration can differentiate scoliosis and non-scoliosis adults with BP. Further studies are needed to better understand BP in adults with scoliosis and provide specific treatment recommendations.

