

Oral Presentation

# Comparison of Pain Location and Extent Between Adults with Ankylosing Spondylitis-related Inflammatory versus Chronic Nonspecific Low Back Pain

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## Introduction

Pain among adults with ankylosing spondylitis-related inflammatory low back pain (AS-ILBP) is not well-characterized, and individuals with AS-ILBP are frequently misdiagnosed with chronic nonspecific low back pain (CNSLBP). This study digitally quantifies and compares the location and extent of pain between adults with AS-ILBP and those with CNSLBP and examines the relationship between the pain extent and functional, psychological, and condition-specific factors in those with AS-ILBP.

## Methodology

The location and extent of pain in adults with AS-ILBP ( $n = 27$ ) or CNSLBP ( $n = 22$ ) was quantified using a digital pain drawing analysis. Relationships between pain extent and perceived pain intensity and disability, pain-related cognitive factors (back beliefs, fear of movement, pain catastrophizing, pain coping, and self-efficacy), psychological distress, and AS-specific features were examined in those with AS-ILBP.

## Result

Pain extent in the dorsal region of the body was greater in those with AS-ILBP than in CNSLBP ( $P < 0.05$ ). In AS-ILBP, the most prevalent pain location was the lumbar region (88.9%), followed by the buttock (70.4%); the frequencies of reported pain in these regions were similar between groups ( $P > 0.05$ ). The AS-ILBP group more frequently reported pain in the thoracic (70.4%) and cervical (51.8%) regions ( $P < 0.05$ ). In the AS-ILBP group, larger pain extent was moderately associated with negative back beliefs ( $r_s = -0.44$  to  $-0.41$ ,  $P < 0.05$ ) and lower self-efficacy ( $r_s = -0.58$  to  $-0.42$ ,  $P < 0.05$ ), but not with any of functional outcomes. Larger pain extent was associated with higher disease activity ( $P < 0.05$ ).

## Conclusion

Adults with AS-ILBP perceive larger pain extent in spinal regions and the degree of pain extent is associated with negative back beliefs, lower self-efficacy, and higher disease activity. Pain drawings may assist in the differential diagnosis of CNSLBP and AS-ILBP. Further, they may aid psychological screening in adults with AS-ILBP.

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