

POSTER PRESENTATION

Open Access

The features of degenerative lumbar scoliosis in rheumatoid arthritis patients -matched cohort study

Hirohisa Yagi^{1*}, Hiroyuki Yasuda^{1,2}, Akinobu Suzuki¹, Akira Matsumura³, Hidetomi Terai¹, Hiromitsu Toyoda¹, Sho Dohzono¹, Hiroaki Nakamura¹

From The 10th Meeting of the International Research Society of Spinal Deformities (IRSSD 2014 Sapporo) Sapporo, Japan. 29 June - 2 July 2014

Objective

The lumbar lesion in rheumatoid arthritis (RA) have been paid less attention, but some previous studies demonstrated the high prevalence of lumbar spondylolisthesis and lumbar scoliosis. The lumbar lesion accompanied with RA is often difficult to treat, and it is important to know the characteristics of lumbar lesion in RA patients. The purpose of this study is to clarify the features of lumbar scoliosis in RA patients compared with degenerative lumbar scoliosis in non-RA patients.

Material and methods

A total of 54 patients (44 women and 10 men, 69.3 years, Cobb angle: 14.6 degrees) with scoliosis (Cobb angle of more than 10 degrees) who fulfilled the revised criteria of the American Rheumatism Association were included in this study. As control, age, sex, and Cobb angle matched 54 patients without RA were selected and also included. We evaluated superior/inferior end vertebra, apical vertebra and osteophyte formation using Nathan's classification (1-4) on plain X-rays. These parameters were compared between two groups using Man Whitney U-test.

Results

The level of apical vertebra was significantly upper in RA than non-RA group. The level of superior end vertebra was also significantly upper in RA group, but there was no significant difference in the level of inferior end vertebra between two groups. The levels of curve was more wide in RA groups (RA group: 4.9 levels, non RA group: 3.6 levels, P value was less than 0.01). The degree of osteophyte formation was significantly greater in non RA group.

Discussion

The present results showed the differences between lumbar scoliosis with RA and that without RA. These differences may indicate that the process or cause of scoliosis development in RA is different from that of degenerative scoliosis. Further, the less osteophyte formation may suggest that the lumbar scoliosis with RA is more likely to have instability, and these differences should be taken into consideration in the treatment of lumbar scoliosis with RA.

Authors' details

¹Osaka City University Graduate School of Medicine, Japan. ²Osaka General Hospital of West Japan Railway Company, Japan. ³Osaka City General Hospital, Japan.

Published: 19 January 2015

doi:10.1186/1748-7161-10-S1-P23

Cite this article as: Yagi et al.: The features of degenerative lumbar scoliosis in rheumatoid arthritis patients -matched cohort study. *Scoliosis* 2015 **10**(Suppl 1):P23.

Submit your next manuscript to BioMed Central and take full advantage of:

- Convenient online submission
- Thorough peer review
- No space constraints or color figure charges
- Immediate publication on acceptance
- Inclusion in PubMed, CAS, Scopus and Google Scholar
- Research which is freely available for redistribution

Submit your manuscript at
www.biomedcentral.com/submit



¹Osaka City University Graduate School of Medicine, Japan
Full list of author information is available at the end of the article