



Health-related quality of life is unchanged at 5 years follow-up after AIS surgery - A single-center study of 164 patients

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Background

Surgical treatment for adolescent idiopathic scoliosis (AIS) is typically performed before the patients embark on their work life. A few multicenter studies have shown a decline in patient-reported outcome when patients are followed beyond the traditional two years after surgery. However, most of these large studies are characterized by a low follow-up rate and the inherent heterogeneity of multi-center studies.

Purpose

Determine health-related quality of life in patients surgically treated for scoliosis with a minimum of 5-year follow up.

Methods

All patients surgically treated for AIS from marts 2011 to marts 2018 were included. All patients had multi-segmental all-pedicle screw constructs. Patient-reported outcome; SRS-22, NRS 1-10 and EQ-5D-3L were collected pre-operatively and at 1-year, 2-year and final follow-up. Radiological and clinical follow included use of daily pain medication, work status including weekly work hours and physical activity level.

Results

One hundred and sixty-four of 178 (92%) patients surgically treated for AIS during the inclusion period were available for follow-up. Mean age at surgery was 15.6 years. Mean follow-up was 6.8(SD±1.4) years with a mean age of 22.3(SD±2.4). Sixteen patients (10%) had revision surgery, most commonly due to infection (26%). We found no change in main curve correction between 2 and 5 year follow-up (29° vs 30°, p=0.78) and no significant difference in SRS-22 (Table 1). At 5-year follow-up, 132 (80%) patients used over-the-counter painkillers once a week or less and only 2 patients (1.2%) used morphine daily. Thirteen patients (8%) were unemployed and the rest was in either full-time employed or studying.

Conclusion

In this single-center study, we found no decline in patient reported outcomes at minimum 5-year follow-up. With a 92% follow-up rate and use of all-pedicle screw constructs, it is illustrative of the advances made in surgical treatment of AIS over the last decade.