

CASE SERIES: SEVERE ADOLESCENT IDIOPATHIC SCOLIOSIS WITH POSTERIOR CORRECTION AND SPINAL FUSION

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Introduction: Most patients with scoliosis of 60° or more present with major spinal deformity, restrictive lung disease, and, if left untreated, rapid progression of the deformity (1). Untreated severe scoliosis of 70° or more is associated with increased mortality as compared with the normal population (2).

Discussion: This case series is about 3 subjects, 23, 15 and 14 years old female who presented with presented with spine deformity for 10 years, associated with on and off back discomfort. unbalanced appearance and was found to have a severe form of idiopathic adolescent scoliosis with main thoracic AIS curves greater than 80°. The patients were given option to undergo surgery due to the long-term negative impact of signs and symptoms of scoliosis upon her health. The patients agreed to surgery, which was performed in our centre, Hospital Universiti Sains Malaysia. All patients surgically treated in year 2018 & 2019 at one institution, by posterior spinal fusion. No neurological complications or deep wound infection occurred in this series.

Conclusion: Pedicle screw instrumentation (PSI) has been shown to obtain better correction of severe scoliosis of 100° or more than using wires or hooks (3). Both open anterior and endoscopic approaches have negatively impacted pulmonary function when compared to a posterior-only approach (4). In our case, we had done posterior approach only of thoracic with PSI. Postoperatively, thoracic curvature angle reduced to 80°. Follow-up for 3 month, patient denied breathing discomfort on exertion. There is significant negative correlation between the preoperative Cobb angle and percent-predicted pulmonary function test values, and a significant negative correlation between the number of involved vertebrae in the major curve and percent-predicted pulmonary function test values (1).