CONCLUSIONS:
Groups (3.7 vs 3.8, \(P < 0.05\)) were noted for SRS-22 total scores in the last follow-up between the two approaches.

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BACKGROUND CONTEXT: Adolescence obesity is a growing epidemic and has been as been associated with adverse outcomes for many elective procedures. With regard to adolescent idiopathic scoliosis (AIS), prior studies have been inconclusive with regards to any adverse effect of increased BMI on AIS patients undergoing surgery.

PURPOSE: The study purpose is to test a hypothesis that adolescent obesity is associated with a larger curve presentation, more postsurgical kyphosis and less surgical correction than their healthy weight counterparts.

STUDY DESIGN/SETTING: Review of AIS database prospectively collected from a six-year period at a single institution of patients with at least one year of radiographic follow-up.

PATIENT SAMPLE: Consecutive patients from a single institution from 2007-2013 were reviewed. All AIS patients who underwent posterior spinal arthrodesis between ages 10-18 were included.

OUTCOME MEASURES: Major curve correction and postsurgical kyphosis.

METHODS: Subjects were grouped by body mass index (BMI) into overweight (BMI% \(\geq 85\)) and healthy weight (BMI% < 85) groups. Radiographic measurements were completed before surgery, immediately postsurgically at first standing and at latest follow-up at least one year after surgery.

RESULTS: 191 patients met inclusion criteria. There were 24% (46/191) in the overweight cohort. The healthy weight group was older (15.0 vs 13.5, \(p<0.001\)); demographics were otherwise similar between the groups. Overweight subjects presented with larger major curves (58° vs 53°, \(p=0.008\)), resulting in larger curves at latest follow-up (21° vs 18°, \(p=0.019\)), but achieved a similar surgical correction (65% vs 64%, \(p=0.70\)). Overweight individuals presented with increased pre-surgical T5/T12 thoracic kyphosis (27° vs 22°, \(p=0.013\)). Following surgery, no significant difference was noted in thoracic kyphosis between groups (18° vs 16°) but at latest follow-up, overweight subjects had more T5/T12 kyphosis (21° vs 18°, \(p=0.028\)).

CONCLUSIONS: Major curves and thoracic kyphosis were larger both pre- and postsurgically for overweight patients; however, the surgical correction was similar for both groups. This would suggest a lower threshold for earlier and perhaps more frequent imaging in overweight patients with AIS. A greater postsurgical thoracic kyphosis suggests a worsening sagittal profile in overweight subjects in the postsurgical phase and may merit more longitudinal clinical monitoring as well as further investigation in longer-term follow-up studies.

http://dx.doi.org/10.1016/j.spinee.2015.07.302

**P67. Does Adolescent Obesity Affect Surgical Presentation and Radiographic Outcome for Patients with AIS?**

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