Medical Xpress

Risk factors ID'd for scoliosis surgery complications

April 30 2013

Increases in the upper thoracic scoliotic curve, thoracic kyphosis, and number of rod-lengthening procedures are risk factors for postoperative complications associated with growing-rod surgery for early-onset scoliosis, according to a study published in the April 15 issue of *Spine*.

(HealthDay)—Increases in the upper thoracic scoliotic curve, thoracic kyphosis, and number of rod-lengthening procedures are risk factors for postoperative complications associated with growing-rod (GR) surgery for early-onset scoliosis (EOS), according to a study published in the April 15 issue of *Spine*.

Kota Watanabe, M.D., from Keio University in Tokyo, and colleagues assessed the clinical and radiographical results from 88 patients with EOS who underwent GR surgery in 12 Japanese spine centers. At the time of initial surgery the mean age was 6.5 years and mean follow-up was 3.9 years.

The researchers found that complications affected 50 of the patients (57 percent) and occurred in 119 of 538 surgical procedures. Complications included 86 implant-related failures (72 percent), 19 infections (16 percent), three neurological impairments (3 percent), and 11 other complications. Dislodged implant (71 percent) was the most frequent implant-related failure, with 95 percent of the dislodgements occurring at the proximal foundation. As the number of rod-lengthening procedures increased there was a linear decrease in complication-free rates. Significant independent risk factors for complications included six or more rod-lengthening procedures (odds ratio [OR], 6.534); an increase of every 20 degrees in the proximal thoracic Cobb angle (OR, 3.091); and an increase of every 25 degrees in the lumbar lordosis angle (OR, 2.607) in the preoperative condition.

"Increases in the upper thoracic scoliotic curve, thoracic kyphosis, and number of rod-lengthening procedures are positively associated with an increased risk of complications after GR surgery for EOS," the authors write.

More information: Abstract
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