Lumbar Spondylolysis and Spondylolisthesis in Children and Young Athletes

Jake Stewart¹, Jonathan Garst², Jenna Ford ³APN and Julian Lin³ MD
¹University of Illinois School of Medicine, ²OSF St Francis, ³OSF Illinois Neurological Institute

Intro: The majority of lumbar spondylolysis are acquired and present as low back pain in young athletes. Congenital causes are rarer and are associated with other spinal abnormalities. While lysis of these lesions are common, it is rare to see high grade slips. Lumbar spondylolysis also has an increased incidence in young athletes, especially those who participate in sports requiring hyperextension of the back.

Methods: IRB approved retrospective review of two patients groups; 1) 40 consecutive patients over a 5 year period and 2) 13 surgically treated patients over 10 years.

Results: Group 1 had a mean age of 14 with 23 male; 82% were involved in sports and presented mainly with back pain. All except four patients had bilateral pars defect and 58% of patients had at least grade 1 slip. Spina bifida occulta was found in 35%; fatty filum without tethered cord in 3 while 1 had tethered terminal lipoma. Eight patients (20%) underwent surgical intervention; all except one had fusion. Group 2 had a mean age of 14 with 7 males; 61% were involved in sports. Radiculopathy with neurological deficits were more common in group 2. Spondylolisthesis was seen in 11 (85%); all except 3 were grade 1 (2 grade 2, 1 grade 5). Spina bifida occulta was found in 54%; fatty filums in four, terminal lipoma in one, and tethered cords in two. All except two underwent fusions; two had pars screws placement.

Conclusion: Acquired lumbar spondylolysis in young athletes respond well to conservative treatments or observation. Spina bifida occulta and lumbosacral dysplasia are contributing risk factors that more frequently lead to surgical intervention; some of these children may also benefit from spinal cord detethering and sectioning of fatty filums.
SAMPLE TITLE
Sample Authors

Introduction

Results

Conclusions

Methods

Conclusions

References
SAMPLE TITLE
Sample Authors

Introduction

Results

Methods

Conclusions

References