

Evidence Discussion (CMM-616: Vertebral Body Tethering for Adolescent Idiopathic Scoliosis)

Vertebral body tethering is a relatively new surgical technique for the treatment of adolescent idiopathic scoliosis. There have been no prospective, randomized or nonrandomized controlled trials comparing vertebral body tethering (VBT) to fusion. Although studies have demonstrated effective deformity correction, complication rates have ranged as high as 23 – 52% and reoperation rates have ranged from 11 – 16%. [1-4] Reasons for reoperation have included hardware failure (e.g., tether breakage, screw pullout/loosening, etc.), progression of curvature with/without hardware failure, undercorrection/overcorrection of curvature, infection, pulmonary complications, neurological injury and vascular complications. [2, 4, 5] At this point in time, there is insufficient high level evidence to support the long term safety and effectiveness of vertebral body tethering and further studies are required. For this reason, spinal fusion surgery is still considered the gold standard for the surgical treatment of scoliosis. [4]

References

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