Adult Symptomatic Lumbar Scoliosis

Smith et al., assessed effects of serious adverse events (SAEs) on 2- and 4-year patient-reported outcomes measures (PROMs) in patients surgically treated for adult symptomatic lumbar scoliosis (ASLS) SUMMARY OF BACKGROUND DATA.: Operative treatment for ASLS can improve health-related quality of life (HRQL), but has high rates of SAEs. How these SAEs effect HRQL remains unclear.

The ASLS study assessed operative versus nonoperative ASLS treatment, with randomized and observational arms. Patients were 40- to 80-years-old with ASLS, defined as lumbar coronal Cobb ≥30° and Oswestry Disability Index (ODI) ≥20 or Scoliosis Research Society-22 (SRS-22) ≤4.0 in pain, function and/or self-image domains. SRS-22 subscore and ODI were compared between operative patients with and without a related SAE and nonoperative patients using an as-treated analysis combining randomized and observational cohorts.

286 patients were enrolled, and 2- and 4-year follow-up rates were 90% and 81%, respectively, although at the time of data extraction not all patients were eligible for 4-year follow-up. A total of 97 SAEs were reported among 173 operatively treated patients. The most common were implant failure/pseudarthrosis (n = 25), proximal junctional kyphosis/failure (n = 10), and minor motor deficit (n = 8). At 2 years patients with an SAE improved less than those without an SAE based on SRS-22 (0.52 vs 0.79, p = 0.004) and ODI (-11.59 vs -17.34, p = 0.021). These differences were maintained at 4-years for both SRS-22 (0.51 vs 0.86, p = 0.001) and ODI (-10.73 vs -16.69, p = 0.012). Despite this effect, patients sustaining an operative SAE had greater PROM improvement than nonoperative patients ($p<0.001$).

Patients affected by SAEs following surgery for ASLS had significantly less improvement of PROMs at 2- and 4-year follow-up versus those without an SAE. Regardless of SAE occurrence, operatively treated patients had significantly greater improvement in PROMs than those treated nonoperatively [1)].

Unclassified articles

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