Spinal Cord Stimulation versus Repeated Lumbrosacral Spine Surgery for Chronic Pain: A Randomized, Controlled Trial


Purpose

- To explore the merits of reoperation and spinal cord stimulation (SCS) in the treatment of failed back surgery syndrome (FBSS).
- To test the hypothesis that SCS is more likely than reoperation to result in a successful outcome by standard measures of pain relief and treatment outcomes.

Methods

- Prospective, randomized, controlled trial (SCS vs. Reoperation)
- 50 patients (48% male) were randomized to SCS or reoperation and followed for 2.9 ± 1.1 years.

Results

- Among patients available for long-term follow-up (n=45), more SCS patients were satisfied with treatment as compared to reoperation patients (47% vs. 12%, p<0.01).
- Opioids
  - Stabilized or decreased more often in SCS patients (87% vs. 58%).
  - Increased more often in reoperation patients (42% vs. 13%, p=0.025).
- Reoperation patients reported loss of function more often than improvement in several categories.

Author Conclusions

- SCS is significantly more successful than repeated operations, by multiple outcome measures, in carefully screened and selected patients with FBSS.
- Patients randomized to SCS achieved success (as measured by at least 50% pain relief and patient satisfaction with treatment) more often than those who crossed over to SCS after reoperation.
Discussion Point

- SCS should be considered as an alternative to repeated operation in patients with persistent radicular pain after lumbosacral spine surgery.