Abstract

Do Preoperative Corticosteroid Infiltrations Increase The Risk For Postoperative Surgical Site Complications In Spine Surgery? - A Swiss Prospective Multicenter Cohort Study

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Purpose

Epidural or facet joint infiltrations of corticosteroids are often used for the treatment of the degenerating spine. However, their well-known immunosuppressive effects could increase the risk for local infections, particularly if a surgical intervention follows the infiltration. The aim of this study was to evaluate the risk for postoperative surgical site infections or wound healing problems in patients who underwent a corticosteroid infiltration prior to lumbar decompression surgery. If so, the minimal time interval between infiltration and surgical intervention could be defined to minimize the risk of surgical site infections or wound healing problems.

Methods/Materials

The Swiss lumbar stenosis outcome study (LSOS), which is a prospective multicenter cohort study of patients with symptomatic lumbar spinal stenosis, was used as database. The data of 416 patients (with 444 surgical interventions) were analyzed to find 10 surgical site complications including surgical site infections (n=6) and wound healing problems (n=4). These patients were matched according to age, sex, diabetes and BMI to a control group. Subgroup analysis was performed for patients with infiltration within 0-3 month before surgery, 0-6 month before surgery or any infiltration at all before surgery. Odds ratios were calculated by using a logistic regression model to quantify the risk of postoperative wound healing problems or surgical site infections after preoperative corticosteroid infiltration.

Results

No significant correlation could be found between preoperative corticosteroid infiltrations and postoperative surgical site infections or wound healing problems in patients with corticosteroid infiltrations within 0-3 month before surgery (OR = 0.36, 95%CI 0.04 -3.22), 0-6 months before surgery (OR = 0.69 (95% CI 0.14 -3.49) or any infiltration at all before surgery (OR = 0.43, 95% CI 0.04 -3.22).

Conclusion

The risk of surgical site infections or wound healing problems after lumbar spinal decompression surgery seems not significantly correlated to preoperative corticosteroid infiltrations.