Does Removing Iliosacral Screws Improve Sacroiliac Joint Pain and Outcomes?
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**Purpose:** Unstable pelvic ring injuries are routinely treated with screws across the sacroiliac joint. Controversy exists with regard to removal of iliosacral (IS) screws. The primary author does not routinely remove IS screws after operative management of pelvic ring injuries. IS screws are only removed if the patient is symptomatic and has no radiographic evidence of nonunion. The most common symptom noted is pain over the posterior aspect of the sacroiliac joint with activity. The primary aim of this study was to determine if screw removal improved posterior pelvic pain and Short Musculoskeletal Function Assessment (SMFA) scores.

**Methods:** Patients who had symptomatic IS hardware removed over a 3-year period were included. Patients were excluded if screw removal was performed for non-pain-related reasons and if chart review was not able to identify pain levels and SMFA scores. Patients were also excluded if they did not have at least 2 follow-up visits after hardware removal. Medical records were reviewed for demographic information. Preoperative and postoperative imaging and operative reports were reviewed for type and number of IS screws utilized.

**Results:** During this period, 39 patients had posterior pelvic ring hardware removal. Nine patients were excluded because the primary reason for removal was not related to pain (3 for revision surgery after transfer from outside hospital, 2 patients for loose screws, 4 pediatric patients). This left a cohort of 30 patients, of whom 5 were excluded due to missing SMFA data. Mean age was 31 years (range, 13-58), mean number of days from date of initial surgery and hardware removal was 1102 (range, 242-5221), and mean number of days from screw removal and last follow-up was 367. 28% of patients required narcotics due to posterior pelvic pain prior to removal, compared to 8% of patients post removal. 88% of patients said that they had improvement in pain after screw removal and that they are happy with the decision to have surgery. Preoperative SMFA Function score was a mean of 70 (range, 34-114; standard deviation [SD] 27), and post screw removal mean score was 61 (range, 34-105; SD 25). Preoperative SMFA Bother mean score was 29 (range, 12-46; SD 12), and post screw removal mean score was 23 (range, 12-37; SD 9.7). No complications were noted for the screw removal procedure.

**Conclusion:** This study suggests that removal of iliosacral screws in symptomatic patients may improve pain at the sacroiliac joint and decrease narcotic requirements. Larger studies need to be performed to verify our findings.

The FDA has stated that it is the responsibility of the physician to determine the FDA clearance status of each drug or medical device he or she wishes to use in clinical practice.