



Sacroiliac Arthrodesis by Minimal Incision Method: One-Year Outcomes

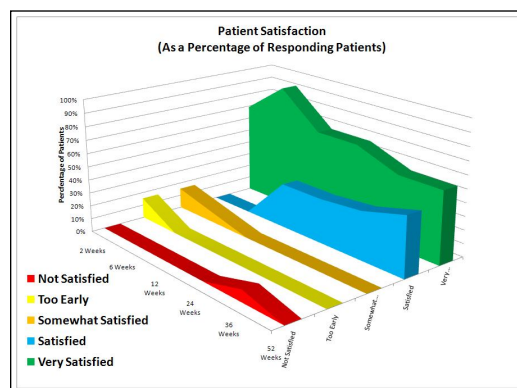
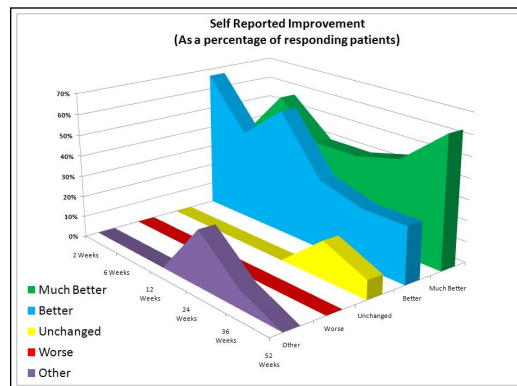
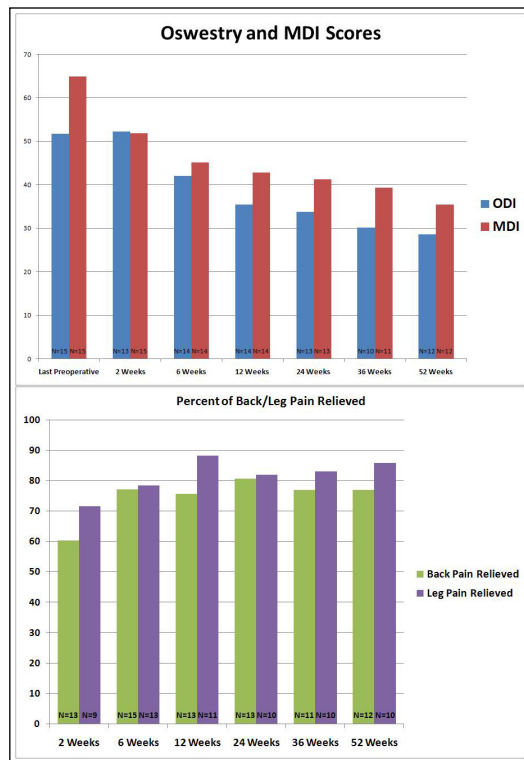
John Stark MD

Introduction

Though fusion has been advocated for SIJ pain and disease, no procedure has received general acceptance. The purpose of this study is to report technical outcomes, and short-term functional outcomes of patients following sacroiliac arthrodesis surgery using a distraction-interference technique.

Methods

Fifteen patients, severely symptomatic with SIJ pain, underwent SIJ arthrodesis using a combined extra- and partial intraarticular technique featuring a posterior-midline incision, controlled distraction/measurement of the extraarticular recess, BMP-2/allografting of adjacent surfaces, and application of an interference-fit threaded implant. Patient sample consisted of 4 males and 11 females. Mean age was 43 (range 22-65). The Oswestry Disability Index (ODI) and Million Visual Analog Scale (MVAS) were the primary functional outcome measures. Patient self-report of improvement, satisfaction, and percent resolution of back and leg pain were collected.



Results

Blood loss averaged 55cc (range 10-300cc). Mean hospital stay was 2.2 days. Average patient function improved significantly. MVAS scores improved 45.6 points (95% confidence interval 30.8 to 60.8 points, 43% improvement, $p < .0001$). ODI scores improved 20 points (95% confidence interval 8.2 to 31.8 points, 36% improvement, $p < .0001$). Patients reported 78% resolution of back pain (95% Confidence interval: 66%-90%) and 86% resolution of leg pain (95% Confidence interval: 77%-96%).

Conclusions

Judged by back and leg pain relief, the surgery is promising in all patients. The SIJ region can be grafted and implanted by minimal incision methods. Patient satisfaction is high. There were no nerve injuries, displacements, infections, or malpositioned implants. Most patients showed significant improvement by three months.