Sacroiliac Joint Fusion Using a Single Compressive, Transfixing Lateral Implant (Liberty): A Retrospective Case Series of 20 Patients



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Introduction: Minimally invasive SIJ fusion with a single lateral compressive, transfixing titanium implant is a treatment for SIJ dysfunction refractory to conservative care. This series extends prior single institution experience (a 10 patient series reported previously by this practice) to a larger, more recent cohort.

Objective: To evaluate pain relief, functional outcomes, and safety of single implant (Liberty) SIJ fusion in a 20 patient retrospective case series.

Materials and Methods: Retrospective case series of 20 patients (13 male/7 female; mean age 61 years, range 34 to 79; mean BMI 30.9 kg/m2, range 24.8 to 47.8; 11 left/9 right side, including 2 staged bilateral fusions) treated with single implant lateral SIJ fusion (Liberty) at a single VA pain management practice between August 2024 and March 2026. Patients treated with a newer hybrid dual implant construct were excluded, as were the 4 most recently treated patients, to preserve a cohort with mature follow up. VAS, ODI, subjective percent relief, opioid use, and complications were recorded from baseline through last available follow up (1 to 12 months).

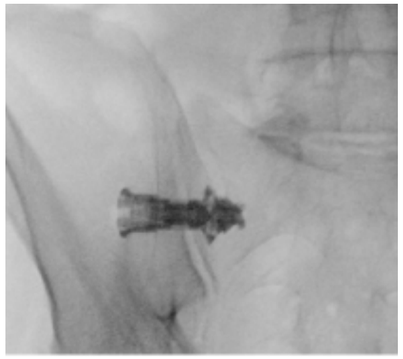


Figure 1: single compressive lateral transfixing implant, outlet view



Figure 2: single compressive lateral transfixing implant, lateral view

"In 20 patients, single implant (Liberty) SIJ fusion achieved at least 80% pain relief in 65% of patients, with zero infections or revisions"

Measure	Baseline	Last Follow up	Mean Change
VAS (0 to 10)	7.0	2.3	↓ 4.7
ODI (0 to 50)	35.9	23.8	↓ 12.1
Subjective % relief	N/A	≈76% (25 to 100%)	N/A
≥80% relief	N/A	13/20 (65%)	N/A
Opioid decreased / not applicable / not recorded	N/A	5 / 8 / 7	N/A
Complications	N/A	1/20 transient pain; 0 revisions/infections	N/A

Results: Mean VAS improved from 7.0 to 2.3 (a decrease of 4.7 points) and mean ODI improved from 35.9 to 23.8 (a decrease of 12.1 points). Mean subjective pain relief was approximately 76% (range 25 to 100%); 13 of 20 patients (65%) reported at least 80% relief. Opioid status was recorded for 13 of 20 patients: 5 decreased, 8 not applicable/unchanged, none increased. One patient had transient increased pain for 2 to 3 weeks that resolved; two unrelated adverse events resolved without sequelae. No infections, revisions, or implant related complications occurred. Two patients underwent successful staged contralateral fusion.

Conclusion: In this expanded 20 patient series, single implant lateral SIJ fusion (Liberty) continued to provide clinically meaningful pain relief, functional improvement, and a low complication rate, consistent with and extending the practice's previously reported 10 patient experience.



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