VILEX JONESFX CASE STUDY

FLORIDA ORTHOPEDIC
Foot & Ankle Center

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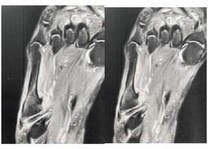
Case Study: Jones Fracture with the Vilex Titanex JFX (Jones Fracture Screw System)

A 70-year-old female presented to the office complaining of right lateral foot pain for 3 weeks. She also underwent a repair of a non-union Jones fracture in her left foot 3 months prior. She stated her right foot began hurting and it felt just like her left side did before it was repaired. She underwent 9 months of attempted conservative treatment for her left foot before having her non-union surgically addressed and did not want to undergo a potential long conservative treatment process on her right side. Initially, radiographs were obtained of the patients right foot and were unremarkable. An MRI was obtained which showed a non-displaced Jones fracture of her right 5th metatarsal with bone edema. Treatment options were discussed with the patient and she wanted to undergo an ORIF to hopefully speed up her healing.

Pre-operative X-rays:

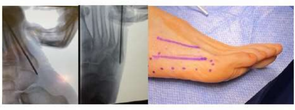
Pre-operative AP and Lateral weightbearing radiographs showing no obvious sign of a 5th metatarsal fracture .

MRI Images:



MRI demonstrating a non-displaced Jones fracture with associated bone edema.

Intraoperative Images:



A guide wire was placed on outside the foot and a C-arm was used to identify the guide wires trajectory and this maked on the patients skin with a skin marker. This will assist with guide wire placement under live fluroscopy.

Next, a 1.8mm guide wire is inserted approximately 1cm proximal to the 5th metatarsal base. We use a "high and inside" position to start the wire entry point. Note the entry point in the base of the 5th metatarsal (left image), AP (middle image) and lateral view (right image). These views will help ensure the wire is centered in the intramedullary canal.

Note entry point of the guide wire about 1cm proximal to the 5th metatarsal base. Next, a stab incision is made at the wire entry point and blunt dissection with a hemostat is performed. The drill sleeve for a 3.3 cannulated drill is then placed over the wire and seated directly on bone. Drilling is then performed over live fluoroscopy and it is important to drill past the fracture site.

Next, the cannulated tap for a 4.5mm screw is inserted and under live fluoroscopy passed past the fracture site to the approximate length of the screw. In this case the 4.5mm tap was small for the medullary canal so we used the 5.5mm tap and it was a perfect fit.

The size of the screw can be measured with the depth gauge provided in the Titanex JFK try or a simple technique is to place the screw on the skin near the 5th metatarsal and use fluoroscopy to determine appropriate length. In addition, the Titanex JFK system allows the surgeon to use a cannulated screw or solid screw depending on preference utilizing the same instrumentation.

Finally, the screw is inserted and note anatomic placement of the screw within the medullary canal of the 5th metatarsal. Routine closure was completed and the patient advised to remain non-weightbearing until the first post-operative appointment in 2 weeks.

Post-operative X-rays:

Post-operative x-rays demonstrating anatomic alignment of the 5th metatarsal with appropriate position of the Jones fracture screw. The patient was permitted weight-bearing in a boot 2 weeks post-operatively and at 4 weeks post-operative transitioned into regular shoes with a carbon fiber insert and allowed to resume normal physical activities 6 weeks post-operatively.