Percutaneous resection of bone spurs on the distal plantar aspect of metatarsals

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Disclosure

• Our disclosure is in the Final AOFAS Mobile App.

• We have no potential conflicts with this presentation.
Introduction

• Patients occasionally experience painful bone spurs after resection arthroplasty\textsuperscript{1,2,3} or fracture.
• In some cases, such spurs are difficult to remove using a dorsal approach.
• However, a plantar approach can sometimes cause a painful scarring postoperatively.
• We report a method for percutaneous resection of bone spurs on the distal plantar aspect of metatarsals.
Surgical technique

- Patient in the supine position
- No tourniquet is used
- Plantar incision 1 cm proximal to proximal flexor crease
- Periosteum removal around the spur using a small rasp
- Spur resection using a side-cutting burr
- Immediate full-weight bearing with a postoperative shoe
Case 1

- 34-year-old female
- Diagnosed with rheumatoid arthritis
- Underwent resection arthroplasty 5 years previously
- Painful callosity under her 2nd metatarsal head

△ bone spur
- Painful callosity disappeared postoperatively
- Transient numbness in her 2\textsuperscript{nd} toe
- No recurrence 9 months after surgery

\[\begin{array}{cc}
\text{Preoperative} & \text{Postoperative} \\
\end{array}\]

\[\Delta\text{ bone spur}\]
Case 2

- 32-year-old male
- 2\textsuperscript{nd}–5\textsuperscript{th} metatarsals fractured in traffic accident
- Previously treated by fixation with Kirschner wires at another hospital
- Residual pain under his 4\textsuperscript{th} metatarsal head

\[\text{\(\Delta\) bone spur}\]
• Bone spur was not resected completely during correction surgery using dorsal incision
• Percutaneous resection of the spur was performed
• No pain 18 months after surgery
Percutaneous resection of bone spurs

• **Advantages**
  - No tourniquet required
  - No painful plantar scarring

• **Disadvantages**
  - Exposure to radiation
  - Requirement of special instruments
  - Possibility of residual bone fragments
Conclusion

• Percutaneous bone spur resection is an effective method for treating painful bone spurs on the distal plantar aspect of metatarsals.
References

