Treatment for talar neck fractures combined with dislocation via medial and lateral incisions
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My disclosure is in the Final AOFAS Mobile App.
I have no potential conflicts with this presentation.
The talar neck fracture is not the common fracture of tarsal bone. However, the treatment of the talar neck fracture is a challenging job.

If the treatment is not suitable, complications are very common, such as avascular necrosis, traumatic arthritis, malunion or nonunion.

The purpose of this study is to explore the operative methods of talar neck fractures via medial and lateral incisions.
Methods

• 32 patients of talar neck fractures were treated from January 2003 to January 2008. There were 22 males and 10 females with an average age of 38.5 years (ranged from 18 to 56 years).
• According to modified Hawkins classification, they included 6 cases of type I, 19 cases of type II, 7 cases of type III. 2 cases of the type I patients were treated non-operatively with non-weight bearing cast for 6 to 8 weeks. 4 cases of the type I patients were treated with percutaneous screw fixation.
• All the patients of type II and type III were treated operatively. 21 cases were treated with open reduction and internal fixation with screws. 5 cases were treated with plate fixation.
Methods

Talar neck fracture with screws fixation via medial and lateral incisions
Methods

Comminuted talar neck fractures with plate fixation
Results

- 24 patients were followed up for 20 months in average (ranged from 12 to 48 months). No wound healing problems or infections were seen.
- AOFAS Ankle and Hindfoot, was 80.5 (ranged from 60 to 96).
- Talar neck fracture nonunion occurred in 1 patient with type II fractures. The patient underwent open reduction, bone grafting and internal fixation. Osteonecrosis occurred in 4 patients with type III fractures.
- Collapse of the talar body was not found in all the 4 patients. 2 of them underwent conservative treatment. Others underwent subtalar arthrodesis because of posttraumatic arthritis or osteonecrosis of the talar body.
Discussion

operating time

- Dislocation of the talar neck fracture must be treated immediately
- If close reduction is difficult, open reduction must be used.
Choose of incision

Malunion is very common in talar neck fracture, such as rotation, varus, valgus, which can influence the biomechanics of the subtalar joint.

Single incision or small incision is not means minimally invasive, and which can lead to deformity of rotation, varus or valgus.

Medial and lateral incisions can expose clearly and help anatomical reduction.
Choose of implants

- Simple fracture: at least 2 screws fixation
- Comminuted fracture or patients with osteoporosis: mini-plate fixation
- Titanium material is recommended for postoperative MRI examination
Conclusion

• According to talar neck fractures, open reduction and internal fixation via medial and lateral incisions can obtain satisfactory outcome.

• However, this article study is a retrospective research with a small sample, which lacks of the samples and the compare comparison with of the surgery and conservative treatment’s outcomes.