Treatment of Large Chondroblastomas of the Talus with Vascularized Bone Autografts

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My disclosure is in the Final AOFAS Mobile App.
I have no potential conflict with this presentation.
The Issue

Large chondroblastoma of the talus in a 15 year old male patient with imminent risk of talar dome collapse in weight bearing areas.
The Goal

- Prevent talar dome collapse
- Guarantee talar revascularisation
The Options

? Curettage

? Cryosurgery

? Radiofrequency Ablation

Simple or in combination with

?? Nonvascularized Bone Allograft or Cancellous Autograft Filling

⇒ BUT: will this adress the vitality of the talus???
The Idea

Vascularized corticocancellous bone autograft to

- Prevent talar dome collapse
- Restore vital bone stock to the talus

Postop CT SCAN on the right: Note the Autograft
The purpose of this study was to report on this novel approach to address large chondroblastoma of the talus with vascularized corticocancellous bone autografts.
Patients and Planning

3 male patients aged between 15 and 33 years

Preoperative work-up:
CT-Scan and MRI

Donor site:
Medial femoral condyle in 2 cases
Iliac crest in 1 case
Results

No intraoperative or postoperative complications.

No donor site pain.

CT scans demonstrated a stable bony structure in all three cases with no recurrence at minimum follow-up of two years.

All patients were satisfied with the obtained result and returned to sports activities.

All patients rated their function comparable to the contralateral foot.
Results

CT SCAN: Preop - Postop - At one year
Conclusion

Treatment of large chondroblastomas with a vascularized bone graft is a viable treatment option.

In all three cases:

- talar body collapse was prevented
- the talus was resvascularized

And: the adjacent joints could be prevented from further damage.
References


Anderson AF, Ramsey JR. Chondroblastoma of the talus treated with osteochondral autograft transfer from the lateral femoral condyle. Foot Ankle Int. 2003 Mar;24(3):283-7.