

Severe OCD of the medial femoral condyle of a 44 year old mountain farmer

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- > Patient presented with persistent knee pain on the medial side
- > In a previous surgery, loose bodies have been removed and a HTO with insufficient correction has been performed

Diagnosis:

Severe OCD of the medial femoral condyle



FIGURE 1: Radiographic evaluation and 3D-reconstruction of the medial femoral condyle shows the huge loss of articular surface.

Treatment:

To-step-procedure: HTO followed by bone reconstruction and AMIC®.



FIGURE 2: After analysis of the orthoradiogram, the right correction angle has been calculated and a second HTO performed, fixed with a Tomofix® plate. After 4 weeks we proceed with the reconstruction of the OCD.

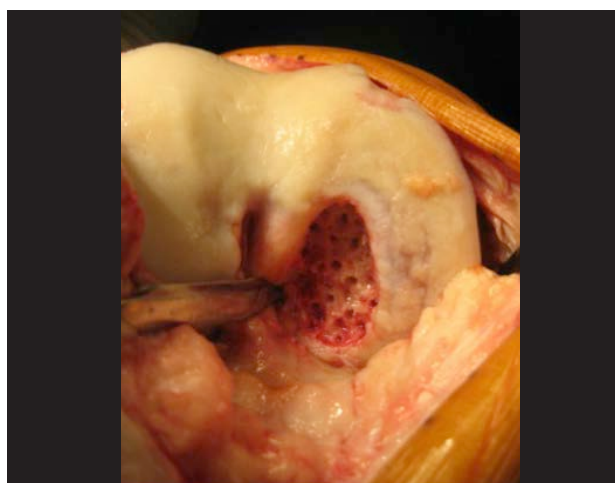


FIGURE 3: The damage at the remaining medial femoral condyle is well recognized. The lesion is debrided, using a curette. Multiple drillholes, using a 1.5 mm drill bit are applied to the cavity. Cancellous bone is retrieved from the distal femur and proximal tibia.

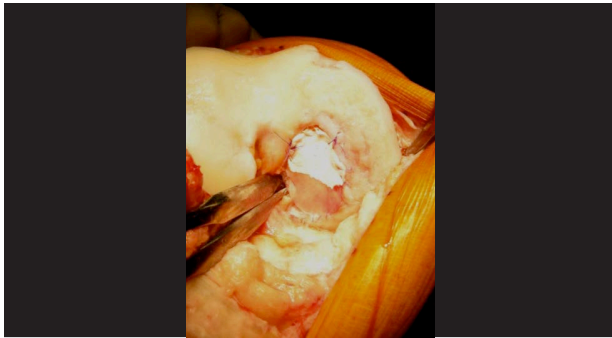


FIGURE 4: After sizing the Chondro-Gide® according to the defect, it is sutured (Maxxon® 5-0) with interrupted stiches in an inside-out technique. Due to the uncontained nature of the defect, the membrane is adapted against the PCL. The anterior part is left open forming a “Kangaroo-pocket”. The defect is then filled with a 1:1 mixture of cancellous bone graft and Hydroxyapatite Granules (Orthoss®).



FIGURE 5: 15 month postoperative, the patient came back to remove the HTO plate and to get a HTO on the contralateral side. Rearthroscopy has been performed at this occasion and a biopsy is performed.

Follow-up:

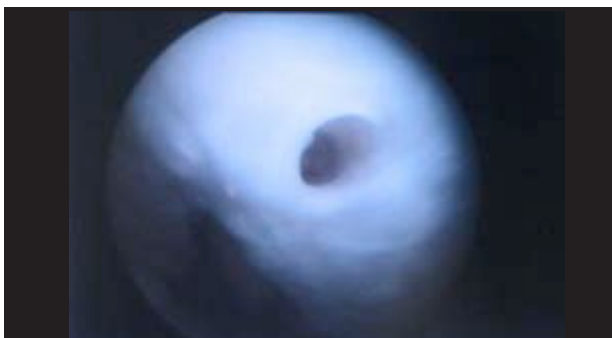


FIGURE 6: Rearthroscopy confirms the nicely reconstructed femoral condyle with thick fibrocartilage regenerate.

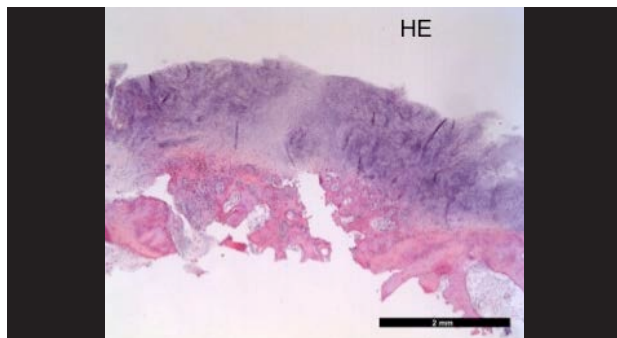


FIGURE 7: The biopsy shows hyaline like cartilage districts.

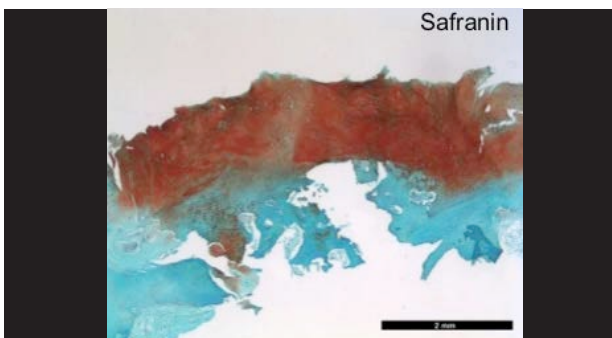


FIGURE 8: The safranin staining confirms high proteoglycan content of the newly build extracellular matrix.



FIGURE 9: The radiographs 6 years after surgery show good osseous consolidation and confirmed preserved joint space.

Results:

This case nicely confirms, how osseous bone stock and decent fibrocartilagenous coverage can be reconstructed using the Chondro-Gide® collagen membrane over autologous cancellous graft mixed with Orthoss®.

Today, 10 years postop, the patient still enjoys working capacity as a mountain farmer.

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