

CASE 1

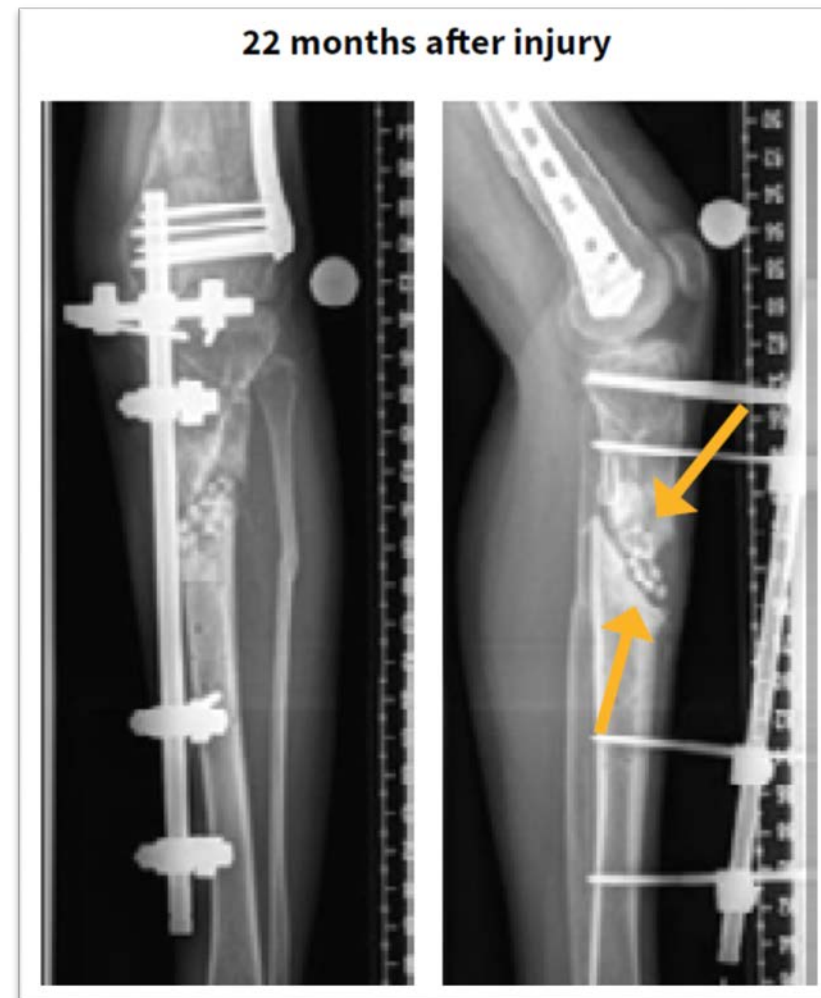
# SEPTIC NON-UNION IN PROXIMAL TIBIA

Courtesy of BG Unfallklinik Duisburg,  
Germany

# PROXIMAL TIBIA (CASE 1)

- **Patient:** 45-year-old female
- **Preoperative status:** Type II° open proximal tibial fracture and distal femur fracture. Multiple revisions with autologous bone and BMP-2. Diagnosis of a septic non-union in the tibia 20 months after injury. Very sclerotic bone region next to the non-union.
- **Bacterial culture:** *Staphylococcus capitis*

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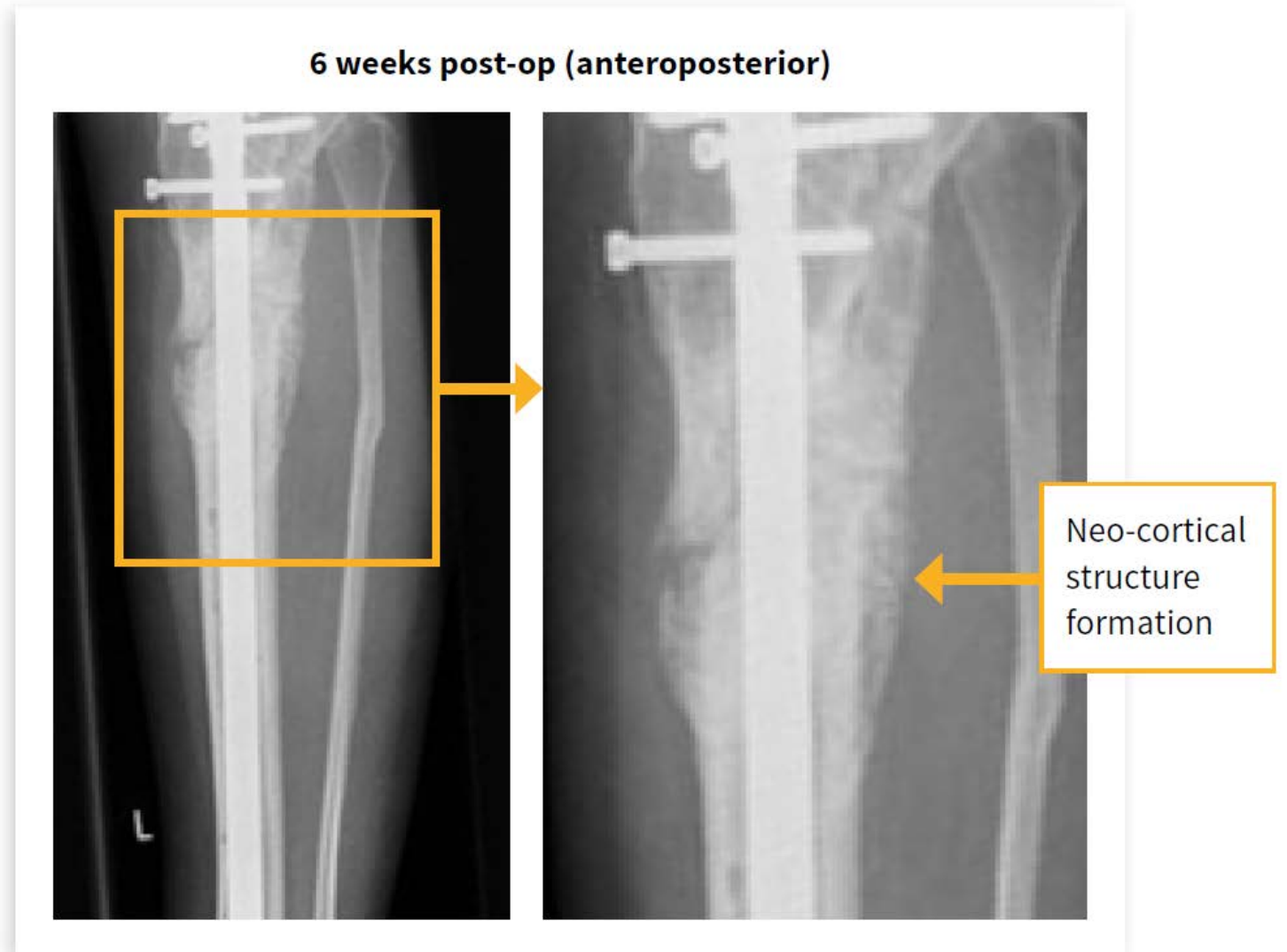
- **Operation:** Extended decortication and drilling (24 months after injury) and insertion of intramedullary nail. Application of 10 cc bioactive glass mixed with autologous cancellous bone (20 cc) from ipsilateral posterior iliac crest 26 months after injury.

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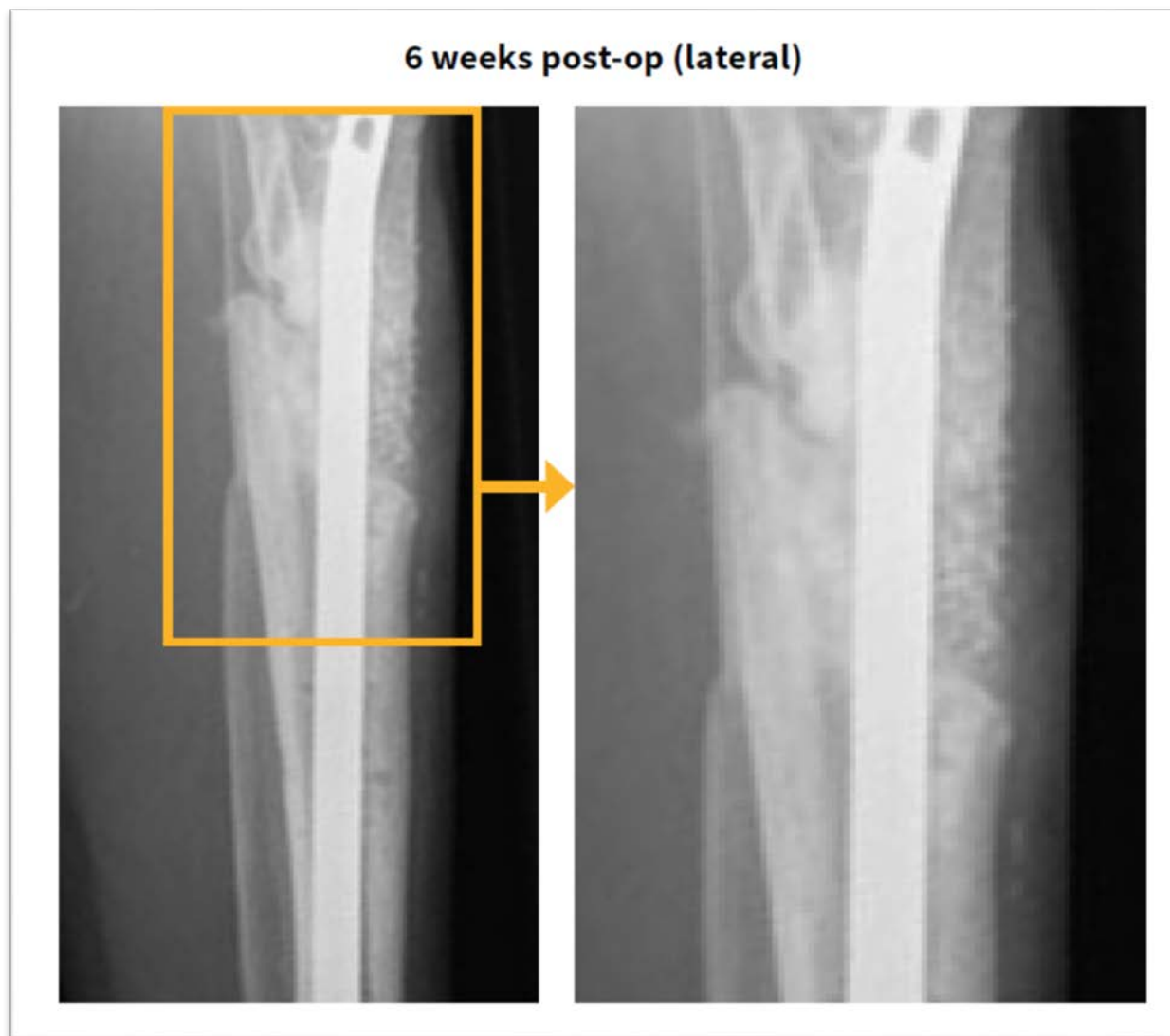


# PROXIMAL TIBIA (CASE 1)

- **Clinical outcome:** Bone formation visible with new callus formation **6 weeks** after surgery.

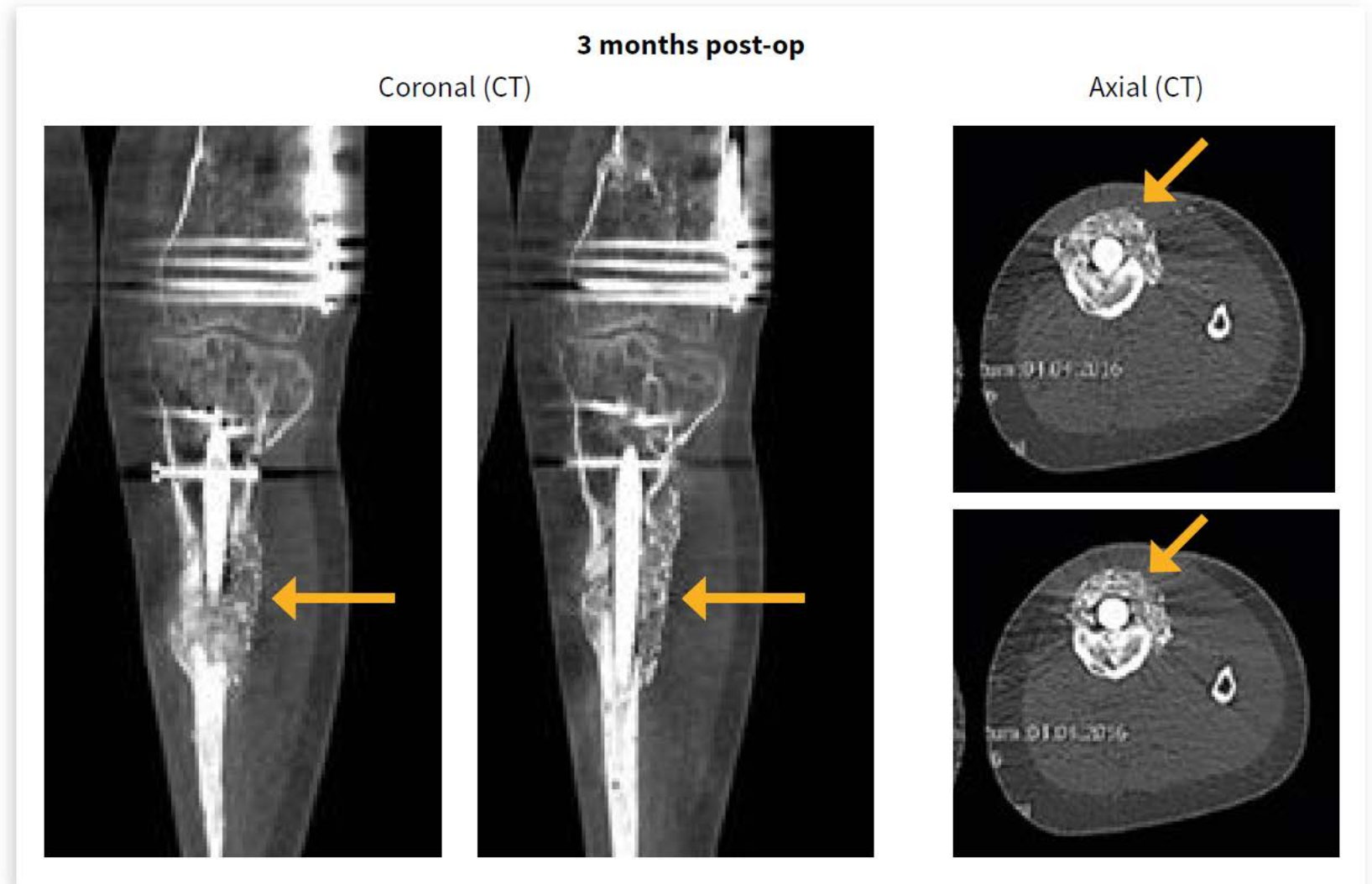


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- **Clinical outcome:**  
New cortical bone formation and progression of bone remodeling visible in the CT images.





# PROXIMAL TIBIA (CASE 1)

- **Final clinical outcome:**  
7 months after application of bioactive glass a complete consolidation could be observed.

