

CASE STUDIES

USE OF CEM-OSTETIC® FOR TREATMENT OF NON-OSSIFYING FIBROMA

Presentation

Patient is a 13-year-old male who presented with insidious onset of right tibial and ankle pain. Radiographic work-up demonstrated presence of an eccentric metaphyseal lytic defect of the distal right tibia consistent with a non-ossifying fibroma.

Treatment

Patient was taken to the operating room for intralesional resection and curettage. After sterile prep and drape of the right lower extremity, a 4cm longitudinal paralateral incision was made lateral to the distal tibial crest. A cortical window was produced with a high speed burr. The lesion was grossly debrided through the defect to normal appearing cancellous bone. The cavity was irrigated with 500ml of 3% hydrogen peroxide solution followed by 500ml of bacitracin solution. 10ml of Cem-Ostetic® putty was then injected via a 60ml piston syringe into the cavity. The putty was allowed to harden. The wound was then irrigated with bulb syringe and bacitracin solution. The wound was closed in standard fashion in multiple layers and a sterile dressing applied followed by a long leg splint. Postoperative films demonstrated good filling of the operative defect with the putty.

Given the bone loss at the fracture site and the poor bone quality, the decision was made to augment the fixation with the use of Cem-Ostetic® putty. A 10cc volume of putty was mixed, placed into a syringe then injected both medially and laterally. The fibula fracture was injected through comminution anterior to the plate. The medial fracture was augmented with putty injected directly into the fracture site. After the material had set



Figure 1. AP X-ray of distal tibia and fibula demonstrating cortical window and bone remodeling 4 months post treatment.



Figure 2. AP X-ray of distal tibia and fibula 6 months post treatment demonstrating bone consolidation with the defect.

Postoperative Results

The patient had an unremarkable postoperative course. The patient was maintained non weightbearing for 2 months and partial weightbearing in a case boot for 1 month. He achieved excellent knee and ankle range of motion and experience rapid resolution of pain. X-rays demonstrated progressive consolidation and healing of the defect over a 12-month period. (Figure 1-4). There was no evidence of local recurrence.

The case demonstrates the potential for use of Cem-Ostetic® as an injectable bone graft substitute for the treatment of benign bone lesions in the distal tibia.

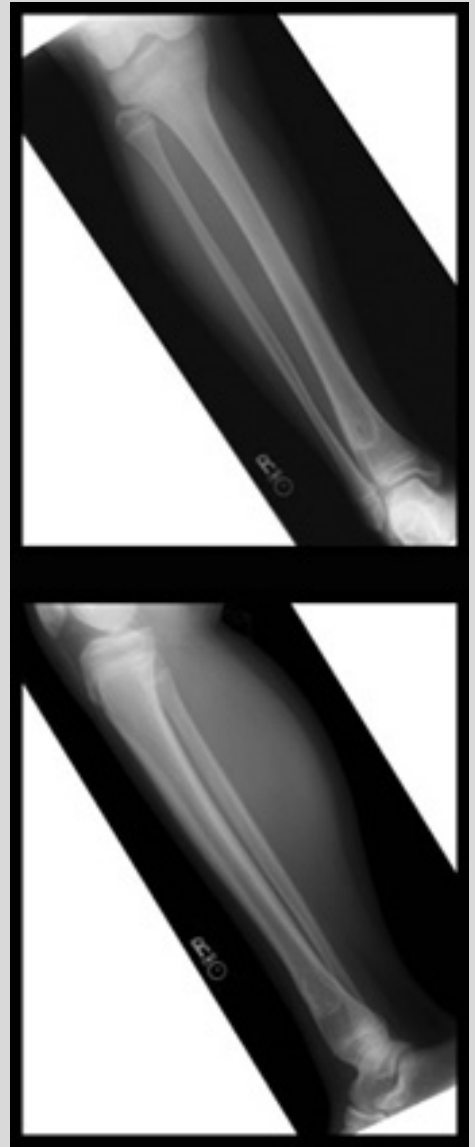


Figure 3 and 4. AP and lateral X-rays of left tibia 1 year post treatment demonstrate healing of the lesion with new bone formation.