

CASE STUDIES

USE OF CEM-OSTETIC® FOR TREATMENT OF FIBROUS DYSPLASIA

History

The patient is a 36-year-old woman with complaints of right hip pain over a period of approximately one year. Due to the persistence of pain a work-up was performed including radiographs that revealed a lucent lesion of the intertrochanteric area. The central portion of the lesion had a "ground-glass" appearance suggestive of fibrous dysplasia (Figure 1). Due to the size of the lesion, location within a weightbearing area, and the persistence of the patient's symptoms, decision was made to proceed with open biopsy, curettage, bone grafting, and prophylactic internal stabilization of the proximal femoral lesion.

Treatment

The patient was taken to the operating room and placed in a supine position on a radiolucent table. Initially, an approximately 3cm incision was made over the lateral proximal thigh at the level of the lesion. A cortical window was made over the lateral femur using a high speed burr and an incisional biopsy of the lesion was performed. Frozen section pathology confirmed the presence of fibrous dysplasia. The incision was then extended for a length of approximately 10cm. The cortical window was then enlarged to a diameter of approximately 2cm to allow complete exteriorization and curettage of the lesion. The cavity was then treated with 500ml of 3% hydrogen peroxide followed by 500ml of bacitracin solution. The proximal femur was stabilized using a trochanteric femoral nail device to prevent fracture. The lesional cavity was then filled with 30ml of Cem-Ostetic® putty that was injected using a 60ml piston syringe. The putty was allowed to harden and the



Figure 1. X-ray-AP pelvis and lateral views demonstrating a lesion of the right femoral metaphysis with the characteristic "ground glass" appearance of fibrous dysplasia.



Figure 2. Intra-operative fluoroscopic view of the right hip demonstrating hardware and Cem-Ostetic® putty.

wound was then irrigated using bacitracin solution. The surgical wound was then closed in layers and fluoroscopy demonstrated well positioned hardware and bone graft substitute material (Figure 2).

Postoperative Course

The patient has an unremarkable postoperative course. She was kept toe-touch weightbearing for 10 weeks duration, followed by progressive weightbearing as tolerated. Serial radiographs showed progressive incorporation of the Cem-Ostetic® bone grafting material within the cavity up to 6 months post-operatively (Figure 3).

This case illustrates the use of Cem-Ostetic® bone graft putty for the treatment of large cavitory defects associated with benign bone lesions.



Figure 3. X-ray-AP pelvis and lateral views demonstrating well positioned hardware and bone formation at the site of the proximal femoral lesion.