

## CLINICAL VIGNETTE

# Arthroscopic treatment for femoral neck enchondroma: case report

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## INTRODUCTION

Enchondromas are benign hyaline cartilage tumours that radiographically present with irregular intra-lesional calcification [1]. Plain radiographs are usually sufficient for the diagnosis, but CT and magnetic resonance imaging (MRI) scans are useful for better assessment of the lesion, in particular for the exclusion of chondrosarcoma [1, 2]. Treatment consists of observation with periodic examinations to assess the evolution of the lesion [1, 2]. Surgical treatment is indicated when there is evolution of the lesion or when it becomes symptomatic. Curettage with or without bone grafting is usually curative [2]. Hip arthroscopy [3] allows getting good visualization of the central and peripheral compartment of the hip, thereby decreasing the morbidity resulting from open surgery [4].

## CASE REPORT

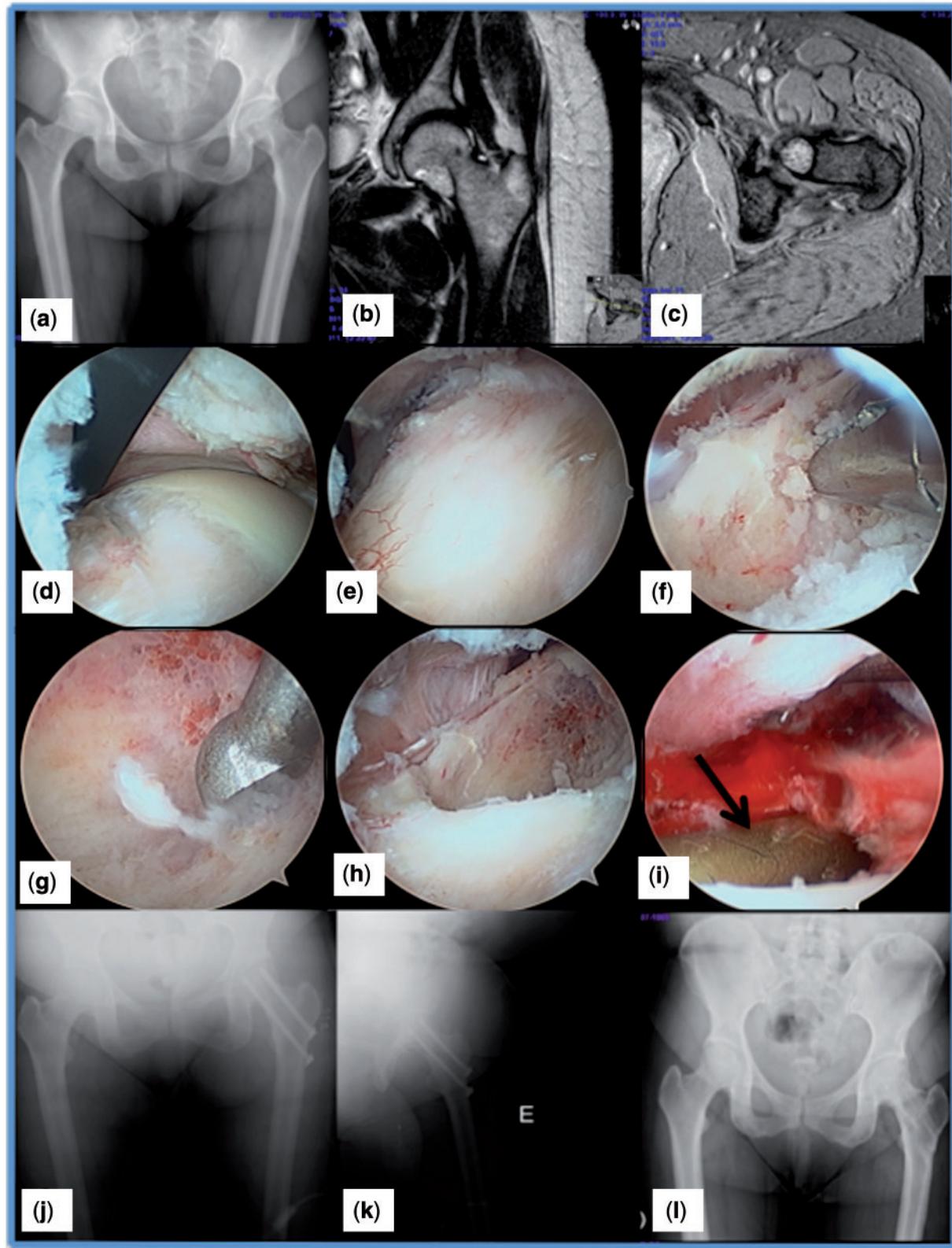
A 47-year-old female patient was referred with left hip pain. On physical examination, she had a normal range of motion (Flexion: 140°, ER and IR: 40°, adduction: 30°, abduction: 60°) with a positive FADIR and a negative FABER test. X-ray and MRI revealed a chondroid lesion without cortex invasion, located in the medial aspect of the femoral neck, with 2.8 cm (Fig. 1a–c). No other intra-articular problem was found. After initial treatment with NSAID's for 6 weeks the pain persisted. Meanwhile there was no radiological change of the lesion. Arthroscopic curettage of the lesion was proposed.

The patient underwent hip arthroscopy in supine position. An anterolateral portal was used as vision portal and an anteromedial portal and an anteromedial proximal portal were used as work portals. After establishing the portals we accessed the pre-capsular space and the femoral neck was visualized after a T-shaped capsulotomy (Fig. 1d–f). To access the medial side of the femoral neck, the hip was flexed and externally rotated. Curettage of the lesion was performed under fluoroscopic control (Fig. 1g–h). Prophylactic femoral neck fixation was performed using two cannulated screws under arthroscopic and fluoroscopic visualization (Fig. 1i). Histology confirmed the diagnosis of enchondroma without evidence of atypical cells or necrosis.

Post-operative instruction for the patient was partial weight bear for 6 weeks and an immediate rehabilitation program consisting of range of movement exercises. Four months post-operatively, the patient reported considerable reduction of pain. At 8 months post-operative, X-ray showed that the defect was filled up and the patient underwent hardware removal. After 10 months, she reported a WOMAC score of 85 (63.3 pre-op), an MHHS of 87 (69 pre-op) and a VAS for pain score of 3 (8 pre-op).

## DISCUSSION/CONCLUSION

This case report shows that arthroscopic curettage of a femoral neck enchondroma is a plausible option. It is not a difficult procedure for a surgeon accustomed to hip



**Fig. 1.** (a) Preoperative X-ray. (b, c) MRI image, demonstrating a medial femoral neck lesion. (d, e) Arthroscopic exposure of femoral neck after T-shaped capsulotomy. (f, g) Curettage of the lesion. (h) Defect after curettage. (i) Arthroscopic view of a cannulated screw in position. (j, k) Post-operative X-ray. (l) X-ray after hardware removal.

arthroscopy. Moreover, it is less invasive compared with hip arthrotomy and has a good clinical outcome.

#### CONFLICT OF INTEREST STATEMENT

None declared.

#### REFERENCES

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