

## Fibrous Dysplasia of the Femoral Neck: An Unusual Radiological Aspect

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### Abstract

### Case Report

Fibrous dysplasia of the bone is congenital but non-hereditary bone affection, where the normal bone is replaced by a fibrous tissue containing immature osteogenesis. It is due to a mutation of the GNAS gene on the 20q13 chromosome, an activator mutation of the  $\alpha$  subunit of protein G. It is a disease that is most often silent, accidental discovery on standard radiography or revealed by bone pain or pathological fracture. We report the observation of a patient with fibrous dysplasia of the femoral neck revealed by pain. The diagnosis has been confirmed by biopsy with anatomopathological examination.

**Keywords:** Fiber dysplasia, pain, femoral neck.

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### INTRODUCTION

Fibrous dysplasia is a rare condition, characterized by bone maturation failure at one or more skeletal sites, it may exist as an isolated or syndromic context. Conventionally, its appearance in a traditional radiography is that of an endo-medullary lytic lesion diaphyseal or metaphyseal of diffuse intermediate density and relatively homogeneous so-called frosted glass.

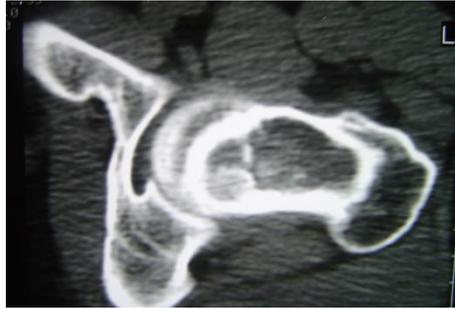
### OBSERVATIONS

This is a 28-year-old man, with no pathological historie, who suffers from a 3 months of

pain, has some kind of inflammation in the left hip, but with no other related symptoms. The osteoarticular examination is without any particular feature, the inflammatory assessment is normal. The standard pelvic radiograph shows a metaphyseal lacunary image at the level of the left femoral neck, heterogeneous with calcifications. There was no leukocytosis, the sedimentation rate and the CRP were normal. A CT complement showed a cystic lesion containing stalls with peripheral condensation. The biopsy returned to fibrous dysplasia, curettage with bone graft filling. The postoperative control at 6months is satisfactory, it shows an absence of recurrence or pathological fracture.



Image-1: Standard hip radiograph showing a gap image of femoral neck



**Image-2: CT scan of the hip showing a cystic lesion of the femoral neck**

## DISCUSSION

Fibrous dysplasia is a rare pathology, generally of an easy diagnosis after a simple radio-clinical examination, its preferred seat in the monostotic form is the maxillary bone, followed by the proximal femur [1] (the case of our patient). Its radiological aspect is usually frosted glass which is very evocative. In our patient, the appearance and localization of the lesion is directed towards a chondroblastoma or a giant cell tumor, and the diagnosis was made only after biopsy[2]. We did not perform preventive osteosynthesis because the lesion is not voluminous or weakens the bone, a curettage-filling is enough. On the other hand, there is a significant risk of graft resorption with reappearance of the image of dysplasia, hence the need of close postoperative control[3].

## CONCLUSION

Fibrous dysplasia is an infrequent condition, generally easy to diagnose after a simple standard x-ray with an evocative frosted glass appearance, the treatment consists of curettage with preventive osteosynthesis if the lesion is voluminous and weakens the bone.

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