A PHALANGEAL OSTEOID OSTEOMA CASE REPORT

J. OOSTERBOSCH[1], L. DE SMET[1], G. FABRY[1], B. VAN DAMME[2]

We describe a typical case of a phalangeal osteoid osteoma in the hand.
The clinical (night pain with complete relief with aspirin, tender local swelling) and radiographic features (a zone of bone sclerosis surrounding a small area of translucency) were obvious. We performed an "en bloc" excision with histological confirmation of the diagnosis and complete relief of symptoms.

Keywords : finger ; tumor ; osteoid osteoma.
Mots-clés : doigt ; tumeur ; ostéome ostéoïde.

INTRODUCTION

Osteoid osteoma, originally described by Jaffe in 1935, is characterized by nocturnal pain and local tenderness. Often aspirin gives remarkable pain relief. Radiographs typically show a zone of osteosclerosis around a small central translucent area containing stippled calcifications. Histologically it is composed of a well-circumscribed mass of irregular osteoid tissue within highly vascularized connective tissue containing osteoblasts.

It occurs mainly in long bones, and the hand is a relatively infrequent location (8), which most often shows involvement of the proximal and distal phalanges ; in the wrist the scaphoid, lunate and capitate are sites of predisposition (1).

CASE REPORT

A 32-year-old female patient complained of pain on the radial side of the middle phalanx of the right fourth finger for 4 months. No trauma was mentioned. The patient reported norturnal pain for one month, which responded well to aspirin. Physical examination demonstrated a localized tender swelling without functional impairment (fig. 1). Radiographs revealed an osteolytic lesion on the radial side of the middle phalanx of the finger, surrounded by a rim of osteosclerosis. A typical central calcification or "nidus" was not seen (fig. 2).

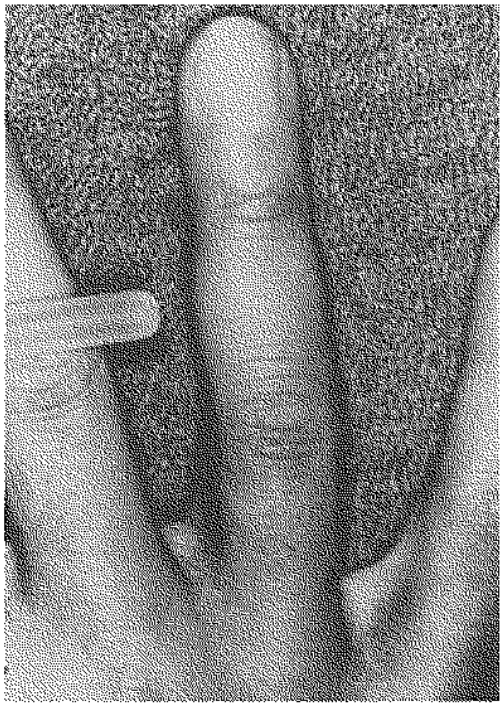
Through a radial midlateral approach, under local anesthesia, an exploration was performed. The cortical bone was thickened and slightly reddish. The cortical bone and underlying medullary canal were resected "en bloc". To provide radiographic evaluation of the bone resection a urografin-stained compress was introduced into the defect created and radiographed (fig. 3).

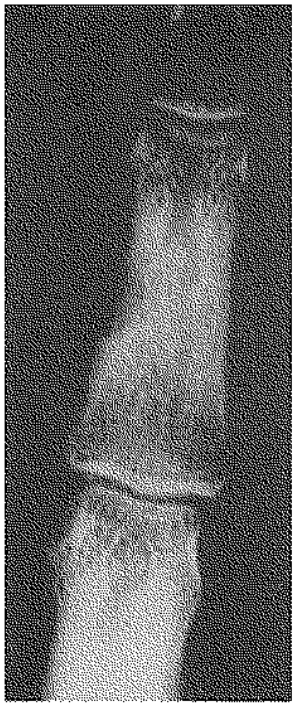
Full range of motion was allowed. Since the operation the patient has remained free of symptoms. Histological examination confirmed the diagnosis of an osteoid osteoma (fig. 4).

DISCUSSION

An osteoid osteoma is a benign neoplasm often with distinctive clinical signs and symptoms. Not always are the clinical features and radiographs so typical as in this case. Lamb and del Castillo (10) stressed the importance of bone scans in addition to radiography. Bone scans demonstrate

[1] Department of Orthopaedic surgery, K.U. Leuven, B-3212 Pellenberg, Belgium.
[2] Department of Pathology, K.U. Leuven, B-3000 Leuven, Belgium.
Correspondence and reprints : L. De Smet.





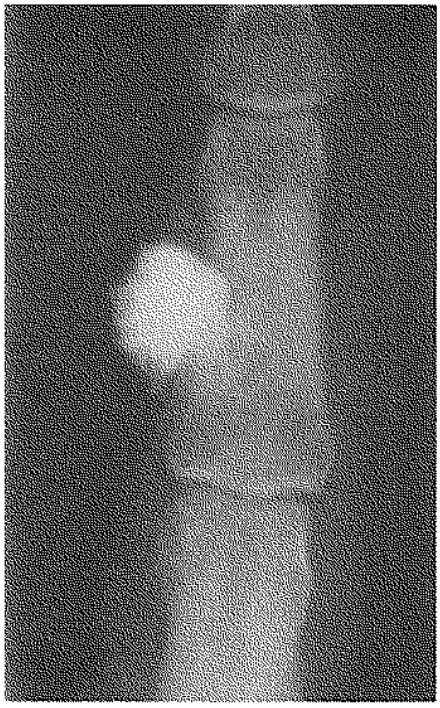


Fig. 1 *Fig. 2* *Fig. 3*

Fig. 1. — Clinical view showing localized swelling.
Fig. 2. — Radiograph 1 : osteolytic lesion with surrounding bone sclerosis.
Fig. 3. — Radiograph 2 : post resection with urografin-stained compress.

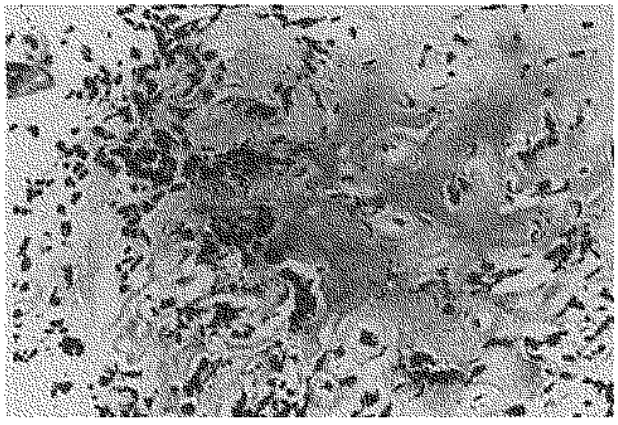


Fig. 4. — Histology : Part of nidus, consisting of irregular bone and osteoid trabeculae, partly surrounded by osteoblasts (Hematoxylin and eosin × 650).

a hot spot mainly because of the highly vascular character of an osteoid osteoma. Angiography can also be helpful in diagnosis and localization of the nidus (11), but it was not performed in this case.

The natural history of an osteoid osteoma is difficult to ascertain because its identification is nearly always followed by surgical removal. Several cases of spontaneous healing have been reported in patients with clinical and roentgenographic diagnoses but without histological confirmation (12).

Although an osteoid osteoma occurs mainly in long bones, it should be considered in the differential diagnosis of pain in the hand. Doyle (6) reported on 7 cases over a period of 10 years. Golding (8) mentioned 18 hand localizations in a series of 198 cases. Allieu (1) reported on 46 cases of osteoid osteoma of the hand over a period of 25 years on the basis of a multicentre study. Others have reported on unusual presentations (2, 3, 4, 5, 7).

There is general agreement that complete excision ("en bloc") of an osteoid osteoma is the treatment of choice. Incomplete excision leads to recurrence of symptoms and poses a diagnostic

problem : was the lesion missed during the excision or was it absent from the slides made by the pathologist ? Therefore curettage of the cavity is not advised as primary treatment.

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SAMENVATTING

J. OOSTERBOSCH, L. DE SMET, G. FABRY en B. VAN DAMME. Een phalangeaal osteoied osteoom.

Wij beschrijven een typische casus van een osteoied osteoom van een phalanx van de hand.
De klinische (nachtelijke pijn met volledige verlichting met aspirines, pijnlijke locale zwelling) en radiografische kenmerken (een zone van osteosclerose rondom een osteolytische zone) waren duidelijk. Een "en bloc"-excisie werd verricht met histologische bevestiging van de diagnose en volledige pijnverlichting.

RÉSUMÉ

J. OOSTERBOSCH, L. DE SMET, G. FABRY et B. VAN DAMME. Ostéome ostéoïde de phalange.

Les auteurs présentent un cas d'ostéome ostéoïde d'une phalange de la main.
Les signes cliniques (douleurs nocturnes avec rémission complète sous aspirine, gonflement local) et radiographiques (zone d'os scléreux entourant une zone radiotransparente) étaient évidents. Traitement par résection en bloc avec confirmation histologique du diagnostic et rémission des symptômes.