CLINICAL REPORT

Humerus pathological fracture revealing biliary carcinoma

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Summary

Tumors of the biliary tract are rare, and their survival prognosis is short since diagnosis is often made at advanced stages of the disease. Diagnosis remains difficult because symptoms are often unspecific. Bone metastasis from biliary carcinoma are rare. We report a case of a humeral metastasis revealing a biliary carcinoma.

Introduction

Distant metastases are rare in biliary tumors. To our knowledge only one case of humeral metastasis from a cholangiocarcinoma has been reported in the literature. The authors report a case of a pathological fracture of the humerus revealing a biliary carcinoma.

Observation

A 58-year-old patient R.G. with no particular medical history, was hospitalized for a left diaphyseal humeral fracture, following a slight trauma. The clinical examination at admission showed a poor general condition, the abdominal examination was normal, the lymph nodes were clear, the thyroid was not palpable and the gynecological examination was normal. Radiographic examination revealed an osteolytic lesion of the cortex of the distal third of the humeral diaphysis (Fig. 1). A diagnosis of a pathological fracture of the humerus was suggested. Surgical treatment included (DCP) plate and screw osteosynthesis and bone cement filling (Fig. 2). The histopathological examination of the surgical specimen confirmed the presence of a bone metastasis from a biliary carcinoma (Fig. 3). The patient also underwent a chest X-ray and a thoraco-abdominopelvic CT scan, which revealed associated pulmonary metastases and large ascites. Three months after surgery the patient died.

Discussion

Tumors of the biliary tract are rare. The incidence of cholangiocarcinoma is low with 2000 new cases in France per year [1]. A certain number of bone metastases may develop during the follow-up of cancer, and diagnosis is not a problem. On the other hand, identifying a primary tumor is difficult in more than half the cases when a metastasis/ies are discovered first, especially if they are isolated; but the primary cancer is not identified in only 4—10% of cases [2,3].

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Figure 1  X-ray of the humerus showing a lytic lesion suggesting a pathological fracture.

Thus for most clinicians, histological proof of a metastasis is unimportant (94% in a Francophone European survey performed by the Gemo group) [4]. Bone metastases from biliary tumors are found in 50% of autopsied patients. In rare cases, bone metastases can complicate the course of cholangiocarcinomas. In the 13 cases of bone metastases described in the literature, secondary bone lesions revealed a primary biliary tumor in only two patients, one located in the thoracic spine and [5] and one in the cervical spine [6]. Like spinal metastases from other malignant tumors, thoracic metastases are the most frequent, followed by lumbar then cervical metastases [7—10]. Two series includ-

Figure 2  Follow-up X-ray after osteosynthesis with a DCP plate and screws with bone cement filling.

Figure 3  Histological characteristics of a bone metastasis from a biliary carcinoma. A. HES × 40. B. Anti-cytokeratin antibodies. C. Anti-cytokeratin antibodies 7. D. Anti-cytokeratin antibodies 19.

ing 126 patients with cholangiocarcinoma [7,8] identified metachronous bone metastases in only eight cases (6%). Only one case of metastasis has been reported in a long bone, with a fracture of the humeral diaphysis on pathological bone [11]. Bone metastases from cholangiocarcinoma are generally voluminous (> 20 mm) and osteolytic as in our case. Treatment of these entities is basically palliative. The prognosis is poor with a mean survival of less than 2 years. [12].

Conclusion

Bone metastases, which may reveal biliary carcinoma, are aggressive, progress rapidly and are the sign of a poor prognosis.

Conflict of interest statement

None.

References


