

## Metastatic cancer in an uncommon location: importance of clinico-pathological correlation

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### To the Editor,

Acrometastasis is an uncommon metastatic location appearing in the small bones of hands and feet (1). Its low incidence, around 0,1% of all bone metastases, may be due to the subclinical presentation and the lack of attention to the extremities in routine examination (1-5). However, it sometimes represents the first expression of an occult malignancy (1-4). The symptoms are aspecific and may mimic a local infection, an inflammatory disease (arthritis, tenosynovitis) or a dermatologic lesion (1-5). The correct diagnosis of this atypical entity is important to draw the attention of the clinicians to the metastatic dissemination of the disease, to initiate adequate treatment and reduce patient morbidity.

We present the case of a 65-year-old woman treated for a pancreatic head adenocarcinoma by chemotherapy and surgery, that presented right lung and mediastinal lymph nodes metastases 2 years after diagnosis, that were resected. Four years after diagnosis, she had complaints of pain and swelling in the distal phalanx of the right middle finger. A radiography of the right hand (figure 1A) revealed an osteolysis of the distal phalanx. FDG PET/CT (figure 1B) showed a hypermetabolism of the phalanx as the only pathologic localization. After failure of a conservative therapeutic treatment by radiotherapy, an amputation of the phalanx was performed. External examination of the resection specimen showed a swelling of the distal phalanx (figure 1C). After cut, a whitish lesion infiltrating the bone was seen (figure 2A). Histological features and immunohistochemi-

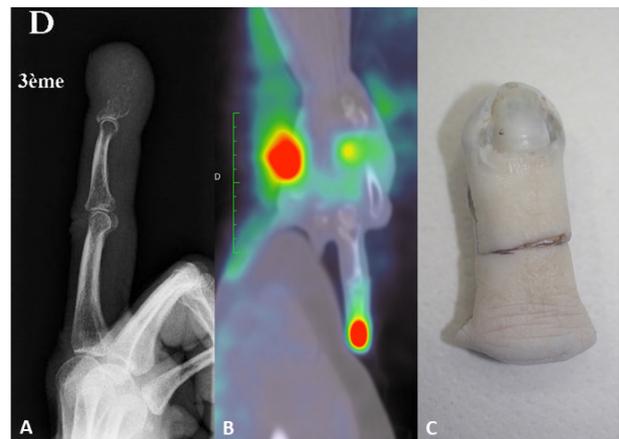


Figure 1. — Radiography (A) reveals an osteolysis of the distal phalanx. FDG PET/CT (B) shows a hypermetabolism of the phalanx and physiological muscular uptake at the level of the fifth metacarpal. The resected specimen (C) shows a tumefaction of the distal phalanx.

cal profile of the lesion appeared similar to those of the primary pancreatic adenocarcinoma and mediastinal metastases. Indeed, histology showed a glandular proliferation composed of cribriform structures lined by an atypical pseudostratified columnar epithelium admixed with nests of tumoral cells floating in mucus lakes (figure 2B). Tumoral osteolysis was noted. Tumoral cells exhibited a strong cytoplasmic expression for Cytokeratins 7, 20 and 19 (figure 2C) and moreover, a Next-Generation Sequencing performed showed the same KRAS (G12V) mutation as found on the previous mediastinal metastases. One month

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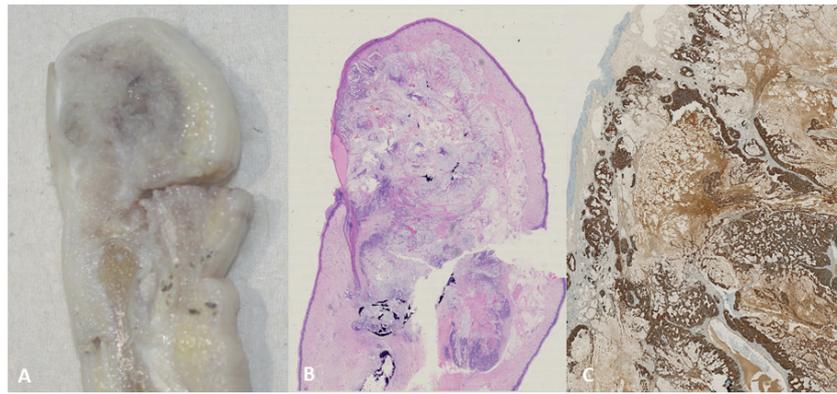


Figure 2. — The resected phalanx (A) presents a whitish lesion in the soft tissue infiltrating the bone. The histological evaluation (B, H&E, 0,9x) shows a proliferation of tumoral glands and nests of tumoral cells floating in mucus lakes. Immunohistochemical stain for Cytokeratin 19 (C, 5x) highlights the tumoral cells.

after the amputation, the patient presented with nausea, dizziness and balance disorders and was diagnosed with brain metastases that were resected. The patient passed away five months later.

Acrometastasis is mostly observed in males and middle age patients (2-4). Dominant hand, middle finger and distal phalanx are reported to be, respectively, the most affected hand, digit and region (2-5). In the feet, calcaneus and tarsus are the most involved (2). Metastases in this site mostly originate from the lung, breast and kidney, therefore a pancreatic origin is unusual (1-5). The pathobiological mechanism is unclear; hypothetical mechanisms have been proposed but may involve chemotactic and hemodynamic factors induced by a repeated trauma (2-5). Acrometastases occur late in the disease course and are usually associated with advanced stages of disease (2-5). At diagnosis, life expectancy is short, around six months, and a radical surgery is performed for palliative

reasons when conservative therapeutic options fail (4-5). Occurrence of acrometastasis is rare but it is important to bear in mind this option, especially when dealing with extremities lesions in a patient with advanced cancer. Surgery is helpful in order to rapidly improve patient quality of life, that is important in view of the dismal prognosis.

#### Conflict of Interests statement

All authors read the manuscript and confirmed that they have nothing to disclose.

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