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Case Report Open Access

Metastatic Cancer of the Toe Presenting as an Abscess in a Nigerian

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Abstract

Metastasis is uncommon in the toe. In the present case, the problem was differential diagnosis primarily as regards infection. However, radiology revealed a metastatic lesion. This merits publication on account of its reality.

Keywords: Toe; Infection; Radiology; Metastasis

Introduction

The selection of sites for secondary involvement has long been of considerable interest. For instance, Stephen Paget [1], in his widely recognized 1889 work on the distribution of deposits in breast cancer, remarked, "Who has ever seen the bones of the hands or the feet attacked by secondary cancer?"

Cancer has, indeed, since then been encountered in these two sites. Thus, they have appeared in the recent literature in respect of the foot. In fact, the reprints in the possession of the senior author (WIBO), who believes in the tracer tool function of reprints [2], are worthy of citation. In his collections, metastatic carcinoma simulated gout in a 67-year-old man [3]. In a 79-year-old woman [4], several bones of the foot were involved on account of rectal carcinoma. Wu and Guise's reports contained 3 carcinomas which arose in the cecum, sigmoid colon and kidney. A single case report [5] followed left upper lobectomy and was associated with ipsilateral cuboid bone deposits. From the Internet, there are also recent cases [6-11]. Therefore, it was deemed useful to add an example from Nigeria.

Case Report

A 65-year-old woman of the Igbo Ethnic Group [12] attended the Out-Patient Clinic at The National Orthopaedic Hospital, Enugu, under the junior author (CBE). The complaints were of pain in the left hip of 8 months duration. There was progressive inability to bear weight as well as occasional hematuria. Spongy swelling of the dorsum of the right foot was observed. X-Ray examination revealed osteolytic lesion of the neck and trochantar with pathologic fracture of the femur. Complete osteolysis of the 5th metatarsal bone was also noted. Incisional biopsy of the femur was undertaken while both incisional biopsy and drainage of what was thought to be the wall of an abscess were carried out in respect of the foot.

The pathological specimens of the femur consisted of several pale wedges measuring up to 2 cm across. On section, there was gritting. Fewer much smaller fragments were submitted from the foot. Microscopic examination of formol-saline fixed specimens followed classical procedures ending in H&E staining. The femur showed bone riddled with epithelial malignancy in which there were well differentiated glands. With regard to the foot, bone was scarcely present, much of the tissue being so necrotic that cancer cells were few and scattered among the abundant purulent materials. Figure 1 depicts the following appearances. The arrows point to the diminishing remnants of bone, while "A" indicates the malignant lesion whereas "B" is the necrotic portion.

It was concluded that there was metastatic carcinoma whose primary source was open to a wide field of choice but was probably renal. The clinical impression was, as in the case of the thumb [13], a toe abscess which was actually metastatic cancer. Unfortunately, the patient discharged herself and has been lost to follow up as so often happens in this environment.

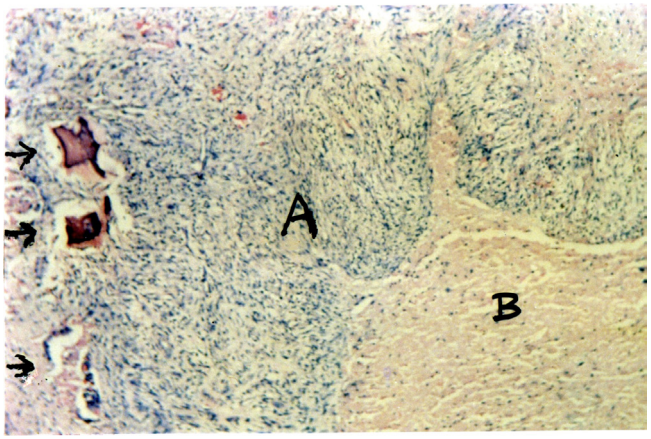

Figure 1: Few bony elements are present as arrowed among the malignant lesion labeled "A", while the necrotic materials are labeled "B". Magnification X 100.

Discussion

The problem of the phenomenon of soil selectivity is of long standing [14]. Perhaps, it is the distance from the site of origin that is responsible here. After all, the foot was readily attacked when the near thigh was the source [15]. Accordingly, since there are circulating millions of cancer cells in the blood stream [16], they are generally ineffective in the foot. Consequently, the other transportation system, the lymph stream, must be considered. In all probability, a distinct answer may well come from "lymphangiogenesis" which solved one such riddle [17]. Work on it could be successful through the current translational research approach [18].

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