Giant basal cell carcinoma presenting as a chronic leg ulcer

A 78-year-old man presented to our department with a 5-year history of a non-healing ulcer on his right leg, previously diagnosed as a venous leg ulcer. It started as a small ulcer located on right perimalleolar region and despite several wound care measures, it progressively increased. Medical history was remarkable for benign prostatic hypertrophy and chronic venous insufficiency. No risk factors for atherosclerotic occlusion were present. Physical examination revealed a large circumferential and irregular shaped ulcer, measuring 14 cm at its largest diameter and occupying the median third of right leg (figure 1A). Its borders were sharply demarcated and raised. The wound bed was hemorrhagic with no visible granulation tissue. Clinical signs of arterial insufficiency were not detected.

Lower limb duplex ultrasonography confirmed bilateral venous insufficiency and arterial stenoses were excluded. A complete laboratory work-up was performed, excluding hematologic, infectious and autoimmune conditions. A biopsy taken from the ulcer margin showed gland-like structures surrounded by strands of basaloid cells in the dermis and subcutaneous tissue (figure 1B). Those findings were compatible with adenoid basal cell carcinoma (BCC). Several biopsies were taken from the ulcer borders and wound bed and all of them supported the diagnosis of primary BCC (figure 1A). Imaging studies excluded osseous involvement and regional and/or distant metastasis.

The patient refused surgical treatment and radiotherapy was started at a total delivery dose of 60 gray (Gy), divided in 2 Gy fractions, over 6 weeks. This course resulted in a decrease in the depth and extension of the wound. Healing was complicated by local bacterial infections, which were managed with systemic antibiotics, wound debridement and silver dressings. During a 10-month follow-up period, a sustained improvement of the leg ulcer was observed (figure 1C). At present, no clinical and/or histological recurrences have been detected.

Chronic ulceration of the lower leg is a frequent condition, with a prevalence of 1-5% over 65 years of age. The most common causes are venous insufficiency, peripheral arterial disease and diabetes [1]. Malignancies may also present as a leg ulcers, most frequently squamous cell carcinoma (SCC) and BCC, which can be primary or secondary to malignant transformation of chronic ulceration. Chronic wounds may degenerate into SCC and less frequently into BCC. Malignant changes usually manifest as an abnormal vegetating lesion [2]. In our patient, the diagnosis of primary BCC was strongly supported by the positive histopathological ulcer mapping and by the absence of localized exophytic lesions. Giant BCC is an uncommon skin tumor variant defined as a lesion greater than 5 cm at its largest diameter. It displays a more aggressive biological behavior, resulting in a higher risk of local invasion and metastasis. Giant BCC is frequently associated with patient neglect, aggressive histological features, previous radiotherapy and long duration. In contrast to ordinary BCC, which is preferentially located in photo-exposed areas, the most frequent localization of

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Figure 1. A) Clinical appearance showing a large and circumferential ulcer located on the right leg. Histopathological ulcer mapping with several biopsies (arrows) taken from its borders (6 specimens) and wound bed (2 specimens) B) Histopathological features of giant basal cell carcinoma. Low power magnification showing basal cell carcinoma with strands and nests of basaloid cells infiltrating the dermis (hematoxylin-eosin stain; original magnification ×40). Higher magnification showing a close-up view (hematoxylin-eosin stain; original magnification ×200). C) Clinical improvement 10 months after completion of local radiation therapy.
giant BCC is the trunk [3, 4]. Its occurrence in the lower limbs has been rarely reported in the literature [5]. When a slowly enlarging ulcer is the most prominent clinical feature of BCC (rodent ulcer), it can mimic chronic venous leg ulcers, leading to misdiagnosis and consequently to a delay in the beginning of appropriate treatment. Surgery is still the preferred therapy for giant BCC, however, radiotherapy is an alternative with satisfactory outcomes, particularly in older patients with inoperable tumours [6].

We report a giant basal cell carcinoma presenting as a longstanding chronic leg ulcer, emphasising the importance of taking biopsy specimens of all suspicious and non-healing leg ulcers. In our experience, local radiation therapy appears to be an effective non-invasive primary treatment for giant and unresectable basal cell carcinomas of the lower limbs.


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Mushroom-like soft fibromas on chronic leg lymphedema

We present an unusual case of soft fibromas on the legs with lymphedema, seen in a diabetic woman. Only two preceding cases have been reported [1-3]. Comparison of the cases disclosed many common features of this condition. A 47-year-old woman noticed a hot sensation bilaterally on her legs in July 2004. She had leg edema of two years’ duration and a yellowish normal skin colored tumor for 1 year. She had had systemic lupus erythematosus for 22 years and corticosteroid-induced diabetes mellitus for 10 years. She had also lupus nephritis and was treated with prednisolone (20-30 mg) and cyclophosphamide for 9 years. No surgical procedure, which could be related to leg edema, was documented. Physical examination revealed that her weight was 125 kg; height was 160 cm; and her temperature was 38.9 °C. Her legs were markedly swollen with diffuse erythema. There were up to 2-3 cm sized, partially violaceous, yellow-skin colored elastic soft nodules and tumors on both legs with no exudation. Inguinal lymph nodes were not palpable. Complete blood count showed white blood cells, 11,400/mm³ (normal; 3000-7800/mm³); hemoglobin, 10.4 g/dL (normal; 10.4-14.4 g/dL); total protein, 4.8 g/dL (normal; 6.5-8.0 g/dL); and albumin, 3.0 g/dL (normal; 4.0-5.2 g/dL). Liver function tests were mostly normal. BUN and creatinine were raised to 51.2 mg/dL (7.0-24.0 mg/dL) and 3.65 mg/dL (0.4-0.9 mg/dL), respectively. C-reactive protein showed 29.94 mg/dL (< 0.5 mg/dL). She was admitted to our hospital under the diagnosis of cellulitis with lymphedema, and antibiotics with γ-globulin therapy were initiated to control severe infection, with a good response.

She had similar episodes of cellulitis in April, May and July 2005 (figure 1A). During the course, yellowish normal skin-colored mushroom-like tumors increased in number and enlarged on her legs. The tumors were more prominent on her right leg and were not seen on the thighs.

Figure 1. Clinical presentation of the skin tumors. The lesions were up to 2-3 cm sized, partially violaceous, yellow-skin colored, elastic soft tumors and nodules. These tumors are enlarged and increased in number, and presented as mushroom-like (Jul. 2005). B) Almost all fibromas are subsiding. Most but not all the tumors are gone. (Sep. 2007). C) Histopathological findings (Hematoxylin-Eosin stain). Low magnification (<40). Dome-shaped pedunculated tumor. Inflammatory infiltrate is observed. Hyper-vascularity and dilated vessels are noted.