

margins were involved. This precluded any other conservative intervention, so the patient was sent to a distinct surgical oncology unit for amputation. Histological examination of the amputated toe showed bone involvement.

The second patient was a 72-year-old man who was referred for evaluation of a slowly enlarging subungual lesion of the right 4<sup>th</sup> toe. He said it had appeared after a trauma and had been present for more than ten years, and in the last months it had become really painful, with walking impairment. The lesion had previously been treated as an onychomycosis and then as a viral wart by other physicians, without any improvement. On physical examination the distal phalanx of the right 4<sup>th</sup> toe looked swollen and erythematous and it presented a shallow, verrucous lesion arising on the nail bed with partial loss of the nail plate (Figure 2). No palpable lymph node was detected. Histological examination of an incision biopsy showed an infiltrative SCC. The patient was sent to a distinct surgical oncology unit to perform digital amputation.

Subungual squamous cell carcinoma, even if rare, is nonetheless one of the most frequent cancers of the nail apparatus. It affects mostly men over 50 years, occurring more often on the hands, and is characterised by slow growth and a low rate of metastatization; however, inguinal lymph nodes may be involved if underlying tendons or bones are infiltrated.<sup>1,4</sup> While fingernail subungual SCC is frequently linked to sunlight exposure or HPV infection,<sup>5</sup> etiology of toe SCC is largely uncertain, with only a few cases clearly related to HPV infection or immunosuppression and others of metastatic origin; in some cases the role of traumas or micro-traumas was suspected.<sup>3</sup> Other possible causes are toxic and radiation exposure and chronic infections.<sup>3</sup>

Diagnosis is challenging because initial clinical presentation may resemble those of benign conditions such as onychomycosis, onychodystrophy or viral warts, and sometimes mycological cultures show secondary dermatophytic colonization, adding to the confusion and delaying the correct diagnosis. Besides, some patients tend to minimize and underestimate foot lesions, as long as they remain asymptomatic and do not cause significant walking impairment. For this reason a conservative surgical approach is often impossible, given the tumor extension and the high risk of local recurrence, and in these cases either distal interphalangeal joint disarticulation or amputation of the affected toe are required, particularly if bone is involved.<sup>1</sup> In advanced disease inguinal lymphadenectomy and adjuvant chemotherapy can be considered.<sup>4</sup> Mohs micrographic surgery is an option for subungual Bowen's disease or small SCC, but it is extremely time-consuming and has higher recurrence rates.<sup>1,5</sup> Some authors propose wide local excision with complete avulsion of the nail apparatus and whole thickness autograft, that has good postoperative toleration and a low relapse rate (5%).<sup>1</sup> In our experience, disarticulation and amputation of the affected toe offer a complete removal of the tumour without causing much discomfort or disability to patients.

Since subungual SCC is a slow-growing malignancy, an early diagnosis is fundamental to consent less destructive surgical interventions and improve prognosis. Our patients were treated ineffectively for years for benign conditions, with loss of money and time, and this ultimately resulted in destructive surgery. For this reason we think it is important to raise awareness of this disease among physicians, so that the eventuality of a SCC may be considered in case of any subungual disease. Consequently, every benign lesion

that does not improve after appropriate treatment of proper duration should be treated as a potential SCC, and a biopsy should be performed as soon as possible to rule out this condition.

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*Conflicts of interest.*—The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Manuscript accepted: January 12, 2016. - Manuscript received: December 16, 2015.

(Cite this article as: Palleschi GM, Tonini A, Di Pietro M. Subungual squamous cell carcinoma: a common pitfall in clinical practice. *G Ital Dermatol Venereol* 2017;152:391-2. DOI: 10.23736/S0392-0488.16.05297-X)

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Giornale Italiano di Dermatologia e Venereologia 2017 August;152(4):392-4

DOI: 10.23736/S0392-0488.16.05330-X

## Concurrent Sweet's Syndrome and erythema nodosum in a patient with bilio-pancreatic diversion

Dear Editor,

In most patients with complicated obesity, the dietary, behavioral, and pharmacological treatments often cannot determine a

long-term clinical improvement. For this reason, bariatric surgery has become an important technique to reduce and control overweight.<sup>1</sup> However, several postoperative complications may arise after bariatric surgery. Cutaneous and joint complication after a surgical bypass procedure belong to the bowel bypass syndrome (BBS) can arise.<sup>2</sup>

A 46-year-old Caucasian female patient presented to our Institute with a 2-month history of asymptomatic diffuse erythematous and nodular lesions, scattered on the forearms, back of the hand and thighs with a symmetrical distribution (Figure 1A). A painful and edematous area on the legs was also present (Figure 1B). Before the onset of the skin features, she had non-specific systemic symptoms with fever and intense joint and musculoskeletal pain. Routine laboratory investigations showed a C-reactive-protein of 65 mg/L and an erythrocyte sedimentation rate of 28 minutes/hour. Rheumatoid factor, antinuclear antibodies, and neutrophil cytoplasmic antibodies to cyclic citrullinate peptides were not detected. Five years before these clinical features, the patient underwent uncomplicated bilio-pancreatic diversion to reduce her body weight. At the time of presentation in our Institute her weight was 71 kg, with 25.26 kg/m<sup>2</sup> Body Mass Index. Her family and personal medical history was negative for rheumatoid arthritis or other autoimmune diseases.

Histologic examination of the forearm skin biopsy showed acanthosis of the epidermis. An intense edema, with a neutrophilic infiltrate, consisting of mature neutrophils in the superficial dermis, was detected, while in the mid and deeper dermis a diffuse neutrophilic infiltrate was also present (Figure 2A). The biopsy of the leg showed a lymphohistiocytic infiltrate with rare polymorphonuclear lymphocytes in the mid-dermis and focal presence of extra and intracellular karyorrhexis (Figure 2B). In the hypodermis the septa showed an inflammatory infiltrate with lymphocytes, giant cells and some foamy histiocytes, with the histological features of a septal panniculitis. Necrosis of the fat tissue was not appreciated. According to the patient's history and skin biopsies, a final diagnosis of Sweet's Syndrome (SS) associated with *erythema nodosum* (EN), in the spectrum of BBS was made. The patient firstly started metronidazole 1gr per day in association with prednisolone 40 mg per day for 6 days. Currently the patient is 18 month-free of cutaneous and systemic symptoms and the routine laboratory investigations are completely in the normal range.

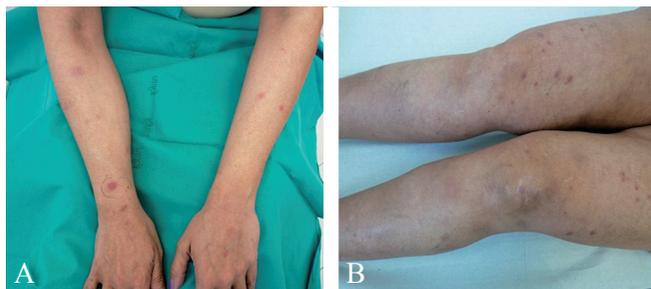


Figure 1.—A) Erythematous and nodular lesions, scattered on the forearms, back of the hand and thighs with a symmetrical distribution; B) painful and edematous area on the legs associated with erythematous and nodular lesions.

Bilio-pancreatic diversion could lead to several complications, including anemia, deficiency of proteins, calcium, fat soluble vitamins, in association with joint and dermatological features.<sup>3,4</sup> BBS is a well described complication, which may involve up to 20% of patients after bypass procedures for obesity.<sup>2</sup> Described for the first time in 1971 by Shagrin *et al.*,<sup>2</sup> BBS has been associated to different bariatric surgery procedures, including Bilioth II surgery and bilio-pancreatic diversion.<sup>5</sup> However, because of the lack of by-pass surgery in some cases, the nomenclature has been changed to bowel-associated dermatitis arthritis syndrome (BADAS).<sup>3,4</sup> Skin features in BADAS could include panniculitis, pustular vasculitis, nodular erythematous plaques and pyoderma gangrenosum.<sup>3,4</sup> However, associated clinical features of SS and EN has never been reported in bilio-pancreatic diversion. Indeed, this association is unusual and since 1992 only 24 cases of concurrent SS and EN have been described in the literature, but never in the spectrum of BBS.<sup>3-5</sup> The pathogenesis of BADAS is not known, although it has been postulated that the deposition of immune complexes formed by bacterial peptidoglycans from micro-organisms overgrowth in blind loops.<sup>5</sup>

Due to the growing number of bilio-pancreatic diversions, it is clear the need to detect as soon as possible BADAS, in order to preserve the health of patients. Therefore, an evaluation of bariatric surgery patients by dermatologist could be an important step to better evaluate this kind of patients. For this reason, a wider knowledge about BADAS is needed. Our report shows an unusual association of SS and EN in a patient with a bilio-pancreatic diversion, enlarging the clinical skin features of BADAS.

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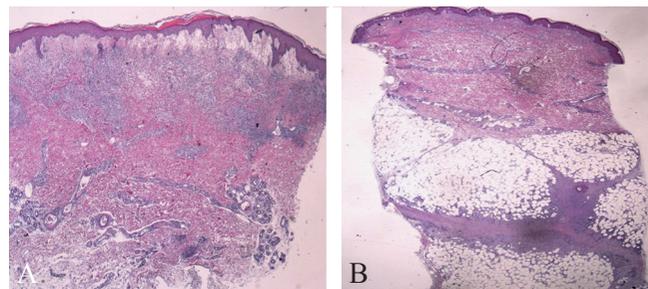


Figure 2.—A) Forearm skin biopsy: neutrophilic infiltrate in the epidermis and a diffuse neutrophilic infiltrate in the dermis; B) leg skin biopsy: lymphohistiocytic infiltrate in the mid-dermis and a septal panniculitis in the hypodermis.

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**Conflicts of interest.**—The authors certify that there is no conflict of interest with any financial organization regarding the material discussed in the manuscript.

Manuscript accepted: February 9, 2016. - Manuscript received: January 31, 2016.

(Cite this article as: Muscardin LM, Paolino G, Cota C, Didona D, Panetta C, Donati P. Concurrent Sweet's Syndrome and *erythema nodosum* in a patient with bilio-pancreatic diversion. *G Ital Dermatol Venereol* 2017;152:392-4. DOI: 10.23736/S0392-0488.16.05330-X)

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Giornale Italiano di Dermatologia e Venereologia 2017 August;152(4):394-6

DOI: 10.23736/S0392-0488.16.05334-7

## Eruptive xanthomas and pancreatitis: clinical, dermatoscopy, confocal and pathological correlation

Dear Editor,

A 48-year-old man was admitted to our Department for multiple lesions on the elbows, arms and back, appeared 6 months before (Figure 1A, B). Clinical observation showed yellowish papules localized mainly on the extensor surface, focally grouped, measuring 3-6 mm in diameter, dome shaped, lightly red with a yellow hue in the center and surrounded by erythematous halos.

The lesions were examined by dermoscopy (Dermlite Foto, 3Gen, Dana Point, CA, USA) that revealed an homogeneous pattern with various shades of yellow and by a polymorphous vascular pattern, surrounded by a subtle erythematous border (Figure 2). At higher magnification, within the orange-yellowish background, some clouds of paler yellow hue were noticeable, and the polymorphous vessels resulted composed of comma, hairpin, corkscrew, dotted and linear-irregular shape. The lesions were also examined by the *in vivo* confocal laser microscopy (Vivascope 1500, Lucid, Rochester, NY, USA) in order to identify specific diagnostic features (Figure 3). Confocal laser microscopy (RCM) showed epidermis with normal structure of the corneum, granular and spinosum layers with a typical honeycomb pattern. The basal epidermal

layer and dermal papilla were not clearly distinguishable. In the upper superficial dermis, RCM showed the presence of large highly refractive nucleated cells and some granular refractive material between normal collagen bundles. Criteria for melanocytic lesions or cutaneous carcinoma were not detectable.

A 4-mm punch biopsy of a lesion from the back was performed. Histological examination showed throughout the dermis prominent accumulation of lipid deposits between the collagen bundles and in confluent masses surrounded by many histiocytes with foamy cytoplasm and rare giant cells (Figure 4). The light eosinophilic foamy material displayed a crystalline-like aspect with slender spicules. According with these findings, a clinical diagnosis of eruptive xanthomas was performed.

Blood analysis revealed the following alternations: cholesterol 531 mg/mL (normal range <200 mg/mL), triglycerides 2.826 mg/dL (normal range <150 mg/dL), glycemia 129 mg/dL (normal range 65-100 mg/dL), AST 45 UI/L (normal range 6-32), ALT 69 UI/L (normal range 15-56 UI/L).

A diet to decrease the level of cholesterol and triglycerides was prescribed and strongly recommended. Even if the patient did not change his nutritional habits and did not attend the diet, after 4 months the eruptive xanthomas spontaneously disappeared (Figures 5A, B). After 2 weeks the patient was referred to the emergency room for a severe bar pain. A diagnosis of acute pancreatitis was performed. The blood exams revealed the following results: cholesterol 531 mg/mL (normal range <200 mg/mL), triglycerides 2.826 mg/dL (normal range <150 mg/dL), glycemia 184 mg/dL (normal range 65-100 mg/dL), cholinesterase 19.329 UI/L (normal range 7000-9000 UI/L), AST 54 UI/L (normal range 6-32), ALT 86 UI/L (normal range 15-56 UI/L), total amylase >1300 UI/L (normal range 25-115 UI/L), lipase >3000 UI/L (normal range 73-393 UI/L). We examined the lesions by dermatoscopy and RCM in order to detect diagnostic clues of this cutaneous manifestation even if the diagnosis of xanthomas is usually based on clinical features. Xanthomas are cutaneous conditions often associated with disorders of the lipid metabolism and with an increased risk of metabolic and cardiovascular complications.<sup>1</sup> Thus this condition cannot be considered as mere

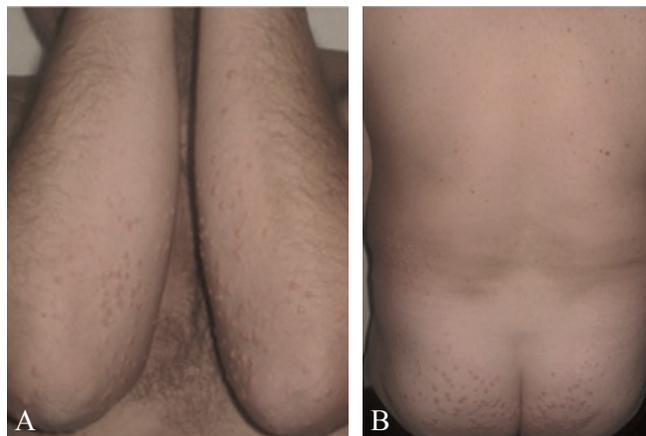


Figure 1.—Cutaneous xanthomas on the elbows, arms (A) and back (B).