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Eccrine Naevus: Case Report and Literature Review

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Sir,

Eccrine naevus is a very rare entity with no more than 20 cases reported in the literature. Various clinical manifestations have been described as a localized hyperhidrotic area without epidermal changes or with a slight hyperpigmentation, papules in a linear distribution, depressed brownish patches, centrally depressed nodules surrounded by a slightly scaly border, a solitary sweat-discharging pore type and asymptomatic papular lesions without sweat increase.

We report a new case of eccrine naevus, which appeared as a slight hyperpigmented and hyperhidrotic plaque. Therapy with botulinum toxin was effective. To the best of our knowledge, this is the first patient with eccrine naevus treated in this way.

CASE REPORT

A 63-year-old man presented with a local area of excessive sweating on his lower back for 3 years. Although sweating occurred throughout the day, it was aggravated by exercise, increased environmental temperature, and stress. The patient had a history of toxic oil syndrome and general pains for which he was taking diclofenac, daily.

The affected area was well defined, around 12 × 5 cm in size, and had slight hyperpigmentation without epidermal alterations. We noted an increased amount of sweating compared to normal skin (Fig. 1).

General physical examination was completely normal and did not reveal other cutaneous lesions. Results of neurological examinations were normal, as were the results of blood investigations and vertebral column radiograph. The starch-iodine test demonstrated a sharp delineation on the lower back.

A biopsy of the hyperhidrotic area revealed marked ductal hyperplasia and dilated coils without epidermal changes (Fig. 2).

Treatment with 20% aluminium chloride hexahydrate

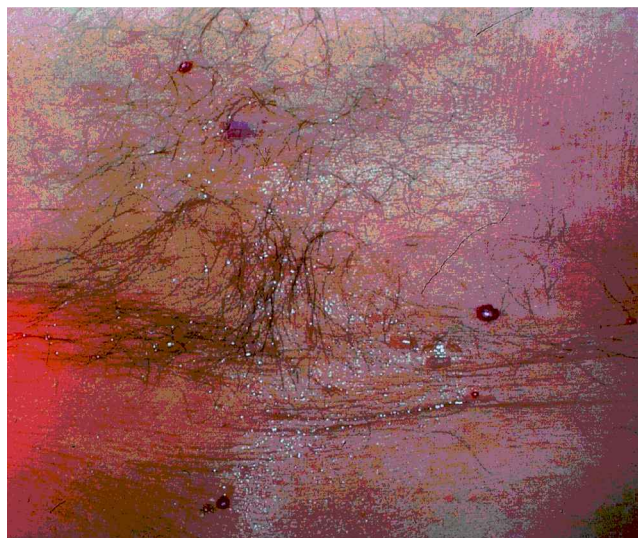


Fig. 1. Hyperhidrotic area on the lower back.

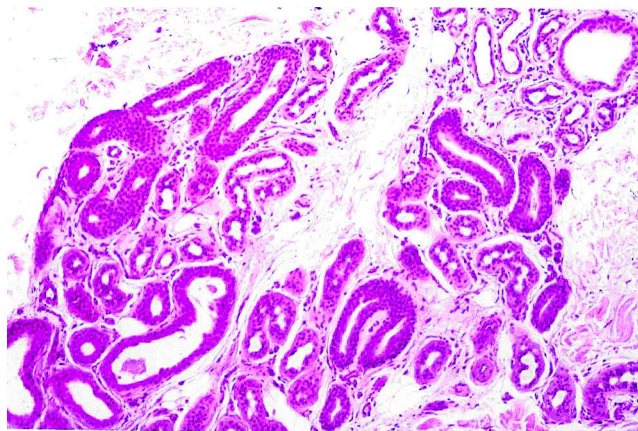


Fig. 2. Skin from lower back showing increased number of eccrine sweat glands and dilated coils of normal appearance.

in absolute alcohol was not effective. We began treatment with botulinum toxin. Botulinum toxin type A (Botox®, Allergan, USA) was diluted in 5 ml of 0.9%

normal saline and the volume of each subepidermal injection was 0.1 ml (2U/injection). The injections were spaced at approximately 1 cm. Treatment with botulinum toxin resulted in a reduction of more than 50% of the sweat by 6 months.

DISCUSSION

Localized unilateral hyperhidrosis has been reported to occur in association with alterations of the sympathetic nervous system by lesions in the central nervous system or peripheral neuropathies, intrathoracic neoplasm, and with osseous alterations. Some cases are idiopathic and the rest are cutaneous diseases.

Cutaneous diseases associated with hyperhidrosis have been reported in several forms: POEMS syndrome, Buerger's disease, causalgia, pachydermoperiostosis, pretibial myxedema, around ulcers, blue rubber bleb nevus, glomus tumors, eccrine naevus (1–3).

Eccrine naevus is a very rare disease, with only scattered cases reported. It falls into two categories: the more common type associated with vascular proliferation (eccrine angiomatous hamartoma) (4, 5) and the extremely rare pure eccrine naevus.

In 1945, Arnold (6) described a 20-year-old man with focal hyperhidrosis on the side of the neck, but histologically both the sebaceous and eccrine glands were involved (6). In 1967, Goldenstein published the most authentic form of eccrine naevus, located on the right forearm of a 12-year-old girl (3).

Eccrine naevus often presents as a localized hyperhidrotic area without any epidermal changes (7–12) or with slight hyperpigmentation (1, 13), papules in a linear distribution with hyperhidrosis or without sweat increase (4, 5), depressed brownish patches, centrally depressed nodules surrounded by slightly scaly border (14, 15), and a solitary sweat-discharging pore type (Table I).

Half of the cases of eccrine hamartomas occurred on the forearms. There is no explanation for the predilective occurrence of eccrine hamartomas in the antebrachial site. It could possibly stand in phylogenetic relation to the antebrachial organ of lower primates (16).

Lesions appear during childhood and adolescence. Only three cases in the literature were reported to be congenital. In one case, the symptoms began at an advanced age, 79 years.

There is no association with other syndromes; although one case was diagnosed in a patient with Down's syndrome (17).

The precipitating factors are the same as for normal sudoration: increased temperature, stress, exercise, etc. However, in a few cases of naevus eccrine, there were no obvious precipitating factors.

Histopathologic findings show an increase in the number and/or an increase in the size of the normal eccrine coil without vessel changes. However, some

Table I. Reports of human eccrine naevus, including age at appearance and location

Author/(ref.)	Age (yrs)/ Sex	Location	Clinical finding
Goldenstein (3)	12/F	Forearm	Loc. hyp.
Cunliffe (7)	0*/F	Forearm	Loc. hyp.
	0/F	Forearm	Loc. hyp.
	67/M	Forehead	Loc. hyp.
Pippione (14)	0/F	Umbilical	Depressed nodule
Martius (9)	20/F	Forearm	Loc. hyp.
Imai (5)	12/F	Leg	Lineal papules
Chan (10)	21/M	Dorsal hand	Loc. hyp.
Bingel (11)	22/F	Forearm	Loc. hyp.
Kerkhof (12)	40/M	Forehead	Loc. hyp.
Mayou (13)	16/M	Back	Pigmented patch
Ruiz de Erenchun (2)	79/M	Trunk	Loc. hyp.
Kopera (16)	25/F	Forearm	Loc. hyp.
Jung (1)	10/F	Fingers	Pigmented patches
Parslew (8)	14/M	Dorsal hand, wrist	Loc. hyp.
Hong (15)	<1/F	Back, legs	Depressed patches
Nightingale (17)	0/F	Parieto-temporal	Nodules
Sheel et al. (4)	0/F	Forearms	Lineal papules

*0 = congenital. Loc. hyp. = localized hyperhidrosis.

authors reported several cases of eccrine naevus showing abnormal structures in eccrine ducts and epidermal alterations.

Surgical excision is the usual treatment of eccrine naevus, but in many circumstances, total excision is not possible.

Other treatments are antidepressive agents, sedatives, anticholinergic drugs, and local preparations including aluminium salts and anticholinergic creams.

These therapies may be ineffective or have side effects, in which case the physicians must try other treatments. Intralesional botulinum toxin, as in this case, may be an alternative therapy.

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Cutaneous *Mycobacterium chelonae* Infection in a Presumably Immunocompetent Host

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Sir,

Mycobacterium chelonae, *M. fortuitum* and *M. abscessus*, species belonging to the so-called *M. fortuitum* complex, are rapid growers and have been known to be pathogenic for humans for many years (1, 2). *M. chelonae* is a saprophyte which is ubiquitous in the environment, found in both soil and water. Laboratory identification is based on growth at temperatures ranging between 28°C and 32°C in less than 7 days; typical Gram stain and colony morphology, acid fastness, the absence of pigmentation and positive arylsulphatase results at 3 days (3, 4).

We describe here a 60-year-old HIV-negative, presumably immunocompetent, woman with primary local skin lesions caused by *M. chelonae*.

CASE REPORT

A 65-year-old housewife born and living in Sardinia was admitted to our Institute in March 1999 with a 10-year history of recurrent multiple subcutaneous nodular lesions on the lower left extremity. These had failed to respond to antibiotics. Examination revealed erythema and oedema of the lower left leg, with numerous spontaneous multiple violaceous nodules (Fig. 1). The left thigh presented an ill-defined, mildly erythematous and slightly hyperpigmented, indurated localized subcutaneous plaque. There was no palpable lymphadenopathy. The lesions periodically improved without apparent cause. There was no history of trauma or iatrogenic procedures. A deep biopsy revealed a mixed granulomatous and acute inflammatory infiltrate composed of neutrophils, histiocytes and multinucleated giant cells in the dermis. No vasculitis or caseosis necrosis was present.



Fig. 1. Numerous cutaneous nodules on the left leg.

PAS stain was negative and no acid-fast rods were present. The routine laboratory tests and HIV test were negative. Chest X-rays and abdomen and pelvic ecography were normal. *M. chelonae* grew on culture from tissue biopsy. After sensitivity testing, oral clarithromycin was initiated (500 mg twice daily). This treatment was continued for 6 months with total remission of the lesions. No relapse was observed for 2 months, but approximately 6 months later 2 new nodular lesions appeared. A new skin biopsy for histological examination revealed numerous acid-fast bacilli within a lobular panniculitis, with a mixed granulomatous and acute inflammatory infiltrate composed of neutrophils, histiocytes and multinucleated giant cells. At culture examination, *M. chelonae* grew from a tissue biopsy specimen within 7 days. This was confirmed by PCR. It was not possible to perform further sensitivity testing and the