

# Eccrine syringofibroadenoma and amyloidosis cutis dyschromica: A new association

Dear Editor,

Eccrine syringofibroadenoma is a rare adnexal neoplasm with varied clinical presentations but similar pathologic findings. The reactive form is associated with different diseases, including primary cutaneous amyloidosis. Amyloidosis cutis dyschromica is a rare type of cutaneous amyloidosis with generalised reticular hypo- and hyperpigmentation generally present since birth. To the best of our knowledge, the association between eccrine syringofibroadenoma and amyloidosis cutis dyschromica remains unreported.

An otherwise healthy 60-year-old man presented with a slowly progressive, asymptomatic red rash on both legs that started ten years ago. Examination revealed multiple erythematous plaques coalescing into cobblestone pattern symmetrically distributed on the dorsal, ventral and lateral surfaces of both legs [Figures 1a, 1b, 1c and 1d]. The patient also reported generalised reticular hyperpigmentation and hypopigmented macules on the trunk and extremities since birth [Figure 1e]. Hair, nails and mucosae were spared. Similar dyschromatosis was reported in his brother and father.

Histology from an erythematous plaque on the right leg demonstrated thin anastomosing epithelial cords and strands connected to the undersurface of the epidermis with ductal differentiation [Figures 2a and 2b]. Carcinoembryonic antigen highlighted the ductal parts [Figure 2c]. Histology from the background skin with dyschromatosis on the back of the patient revealed clumps of eosinophilic globules in the papillary dermis that showed positive Congo red staining [Figures 2d and 2e]. Based on the clinicopathological correlation, we made a diagnosis of reactive eccrine syringofibroadenoma in a patient with amyloidosis cutis dyschromica.

Eccrine syringofibroadenoma is considered either a benign adnexal neoplasm, a hamartoma or a reactive eccrine epithelial hyperplasia. It is characterised by the proliferation of cords and strands of ductal epithelium connected to the

undersurface of the epidermis.<sup>1</sup> Histopathological differential diagnoses include fibroepithelioma of Pinkus, squamous cell carcinoma, pseudoepitheliomatous hyperplasia and follicular infundibular tumours [Table 1].<sup>2</sup>

Five types of eccrine syringofibroadenoma have been described: (1) solitary eccrine syringofibroadenoma, (2) multiple eccrine syringofibroadenoma associated with ectodermal dysplasia, (3) multiple eccrine syringofibroadenoma without associated cutaneous manifestations, (4) non-familial unilateral linear eccrine syringofibroadenoma and (5) reactive eccrine syringofibroadenoma. The clinical picture is variable, ranging from a single plaque to widespread red papules and nodules. Several sites may be affected, but the extremities are most commonly involved.<sup>1</sup>

Reactive eccrine syringofibroadenoma has been associated with multiple skin conditions, such as ectodermal dysplasia, venous stasis, nail trauma, chronic skin ulcerations, diabetic foot ulcer, burn scars, squamous cell carcinoma, leprosy, bullous pemphigoid, epidermolysis bullosa, erosive lichen planus, peristomal dermatopathy, hyperkeratotic eczema, psoriasis, naevus sebaceous and primary cutaneous amyloidosis.<sup>1</sup>

The etiopathogenesis of reactive eccrine syringofibroadenoma remains controversial. Repeated damage, regrowth and tissue remodelling of the skin and its appendages, including eccrine ducts, were proposed as the cause in inflammatory and neoplastic skin diseases.<sup>3</sup> Impaired keratinocytes differentiation and metabolism is another theory for the development of reactive eccrine syringofibroadenoma, supported by immunohistochemical studies that proved impaired cytokeratin expression in eccrine syringofibroadenoma.<sup>4</sup>

The course of a reactive eccrine syringofibroadenoma is mostly benign; however, malignant transformation has been reported. Treatment depends on the number and the site of

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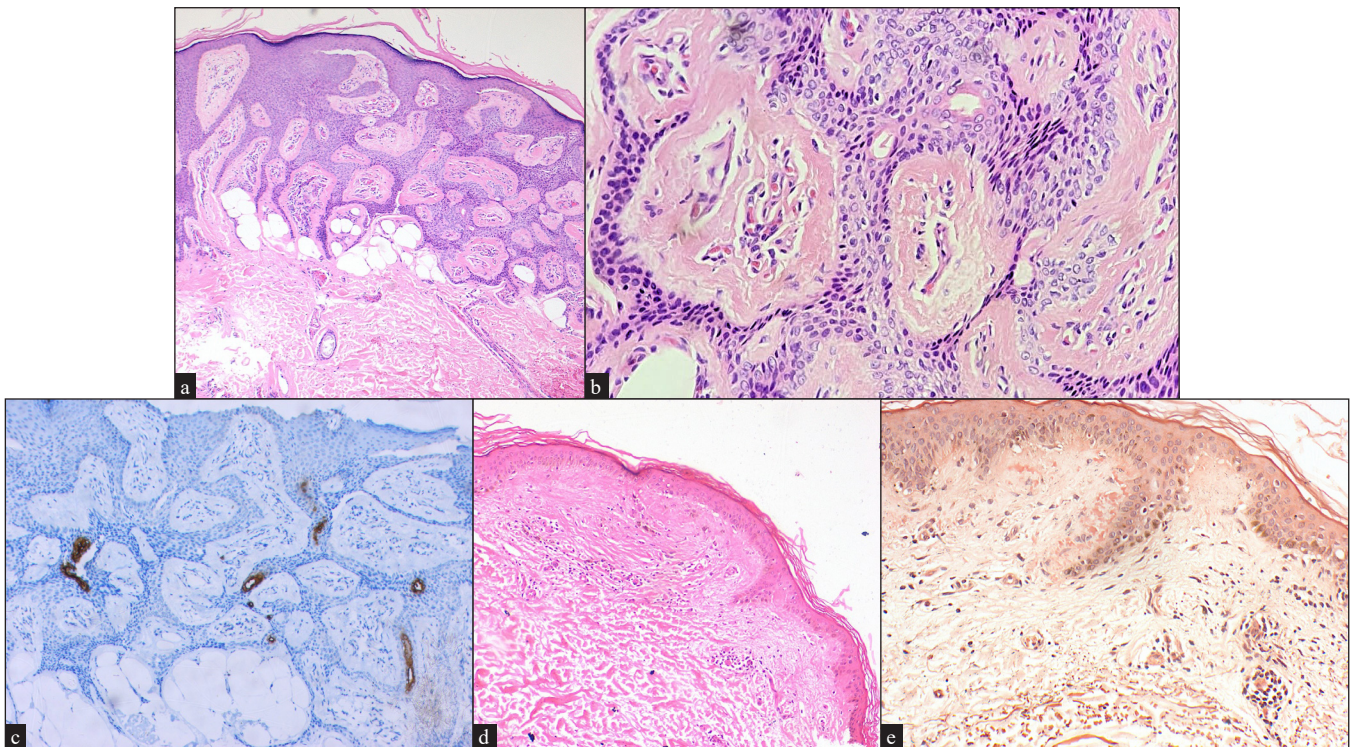
**Figure 1:** Coalescing erythematous papules and plaques on the (a) dorsal, (b) ventral, (c & d) lateral surfaces of both legs and (e) dyschromatisms on the trunk and upper limbs.

**Table 1: The histopathological differential diagnosis of eccrine syringofibroadenoma**

Histopathological differential diagnosis	Differentiating points
Fibroepithelioma of Pinkus	Reticulated interconnected basaloid epithelial strand with no ductal-like structures
Squamous cell carcinoma	Infiltrating nests of squamous epithelial cells with atypia
Pseudoepitheliomatous hyperplasia	Irregular strands of squamoid cells extending into the dermis which occurs in the setting of different occasions like chronic irritation, ulceration and chronic infections
Follicular infundibular tumours	Anastomosing strands with plate-like structure formation in the dermis and no ductal structures

the lesions. Retinoids, surgical excision, electrodesiccation, cryotherapy and ablative lasers have been tried with variable results.<sup>2</sup>

To the best of our knowledge, we have reported the first case of reactive eccrine syringofibroadenoma in the setting of amyloidosis cutis dyschromica. Amyloidosis cutis dyschromica is a rare subtype of primary cutaneous amyloidosis, characterised clinically by reticular hyperpigmentation with hypopigmented macules on the trunk and extremities. The pathogenesis of amyloidosis cutis dyschromica has been attributed to abnormal keratinocytes survival and differentiation, disturbed keratin metabolism and defective deoxyribonucleic acid repair which occur



**Figure 2a:** Histopathological pictures showing anastomosing cords of epithelium connected to the undersurface of the epidermis (Haematoxylin and eosin, 40x). (b) Higher magnification revealing the ductal structures (Haematoxylin and eosin, 100x), (c) Immunohistochemical staining showing positivity to carcinoembryonic antigen (CEA), 100x, (d) Microphotograph showing pink globules deposition in the papillary dermis (Haematoxylin and eosin, 40x), (e) Congo red positivity to confirm the amyloid nature of the globules (Congo red stain, 100x).

secondary to mutation in Oncostatin M Receptor, interleukin 31 receptor A and glycoprotein non-metastatic melanoma protein B genes.<sup>5</sup>

We suggest that the development of reactive eccrine syringofibroadenoma in amyloidosis cutis dyschromica may be attributed to abnormal differentiation signals in keratinocytes resulting in their ductal transformation.

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## References

1. Franin I, Regović Džombeta T, Krušlin B, Tomas D. (Reactive) Eccrine Syringofibroadenoma with foci of squamous cell carcinoma in situ: A case report. *Acta Dermatovenerol Croat* 2021;29:224–7.
2. Hays JP, Malone CH, Goodwin BP, Wagner RF. Reactive Eccrine Syringofibroadenoma associated with basal cell carcinoma: A histologic mimicker of fibroepithelioma of pinkus. *Dermatol Surg* 2018;44:738–40.
3. Ko EJ, Park KY, Kwon HJ, Shim JH, Seo SJ. Eccrine Syringofibroadenoma in a patient with long-standing exfoliative dermatitis. *Ann Dermatol* 2016;28:765–8.
4. Saggini A, Mully T. Reactive eccrine syringofibroadenomatosis secondary to primary cutaneous amyloidosis: A novel association. *J Cutan Pathol* 2014;41:380–5.
5. Chiu FPC, Wessagowit V, Cakmak MF, Doolan BJ, Kootiratrakarn T, Chaowalit P, *et al.* Molecular basis and inheritance patterns of amyloidosis cutis dyschromica. *Clin Exp Dermatol* 2020;45:650–3.