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Letter To The Editor

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Intradermal Melanocytic Nevus with Secondary Cutaneous Amyloidosis

To the Editor. - Amyloidosis is a disease due to the deposit of amyloid that is a complex substance mainly made of proteins [**1**]. Microscopic amyloid deposits have been described in association with multiple cutaneous pathologies, such as seborrhoeic keratosis, sweat-gland tumors, pilomatrichoma, trichoepithelioma, solar keratosis, Bowen's disease, basal cell carcinoma, dermatofibroma and porokeratosis. It has also been reported following psoralen plus UVA therapy, or associated with mycosis fungoides and discoid lupus erythematosus [**1,2**]. However, amyloid deposition in association with melanocytic nevi was demonstrated only on 4 cases previously in the literature [**3,4**]. Herby, we reported a case of secondary amyloid deposition within intradermal melanocytic nevus.

A 54-year-old man complained of small-pigmented nodule on the edge of the nose, which had persisted over the previous 30 years. Dermatological examination showed a 5-mm, well-circumscribed, brownish papule on the edge of the left side of the nose. Histological observations of the lesion were typical of an intradermal melanocytic nevus. The most notable feature of this nevus, however, was a deposition of eosinophilic amyloid within papillary dermis. This material stained with crystal violet (**Figure 1**).

Virchow was firstly described the term amyloid (cellulose-like) in 1875. He believed this material to resemble starch or cellulose on the basis of its ability to stain with iodine. Amyloid is defined as eosinophilic homogeneous material that is predominantly composed of protein derived amyloid fibrils. Also, it contains glycoprotein P which is embedded in a ground substance consisting heparin and dermatan sulfates [**2**].

Amyloidosis is induced by deposition of amyloid proteins in various organs [**5**]. Amyloidosis is seen in two forms. Some forms of amyloidosis are systemic, although some are localized. Skin can be involved in both ways [**1**]. Amyloidosis limited to the skin is called primary localized cutaneous amyloidosis. Primary localized cutaneous amyloidosis is clinically classified into more common macular, papular, and the rare nodular form. Also, reports of cases showing peculiar forms of cutaneous amyloidosis are seen, depending on the different races [**5**]. In addition, amyloid deposition is secondarily seen in association with different dermatological diseases [**1,2**]. Several specific stains such as PAS, crystal violet, Van Gieson, thioflavine T fluorescence, Congo red, and Dylon show amyloid deposits. Light microscopy reveals amorphous materials extracellularly. Electronic microscopy plays a limited role in the daily diagnosis of cutaneous amyloidosis. Nevertheless, it can be a useful

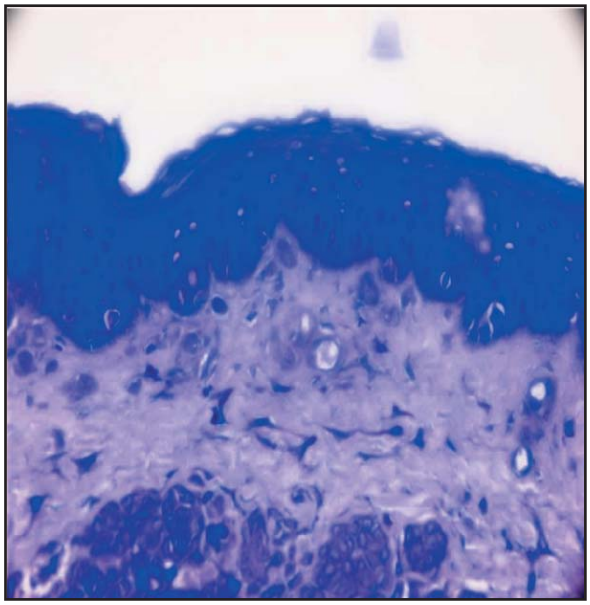

Figure 1. Infiltration of small uniform nevus cells in dermis and deposition of eosinophilic amyloid within papillary dermis. Crystal violet 40x0,65

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tool when special stains fail to demonstrate the amyloid deposit [**1**].

In secondary cutaneous amyloidosis, the origin of amyloid is particularly in association with skin tumors of epithelial cell origin. Alternatively, it has been suggested that degenerating nevus cells may contribute to amyloid production. The amyloid in the localized cutaneous amyloidosis is mainly derived from epidermal keratins. The keratin from damaged keratinocytes drops off to the dermis and is degenerated to form amyloid materials [**4**].

MacDonald et al. reported three cases of melanocytic nevi with amyloid deposition. One of the three lesions had occurred on a sun-exposed site. Two were compound nevi, in which amyloid deposition was noted in the subepidermal position, and one was an intradermal type in which amyloid deposition was located centrally within the nevus [**3, 4**]. Our case is the third case in the literature that showed amyloid depositions in the subepidermal part. *Hanami* et al. presented a case that consisted of an intradermal melanocytic nevus developed on an unexposed site [**4**]. In our case, the nevus was placed on face. In addition, amyloid deposition was shown in papillary dermis. Although the origin of amyloid deposition in nevi and precipitating cause is unknown, our patient's lesion localization and previously reported nevus localization, which was a sun-exposed area, may show the role of UV on etiology.

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