

hygiene or inappropriate use of soaps, makeup-removing solutions, and creams.^{4,6}

In conclusion, we present a new patient with follicular spicules on the face, with the presence of *Demodex* on histological study. We consider there to be a proven causative relationship because of clinical resolution after the application of permethrin.

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Conflict of Interest

The authors declare no conflicts of interest

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Cutaneous Sclerosing Perineurioma

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To the Editor:

The perineurium is a structure that surrounds and protects nerve fascicles, and is formed of groups of flattened cells well organized into 1 or more layers. These cells are characterized by expression of epithelial membrane antigen (EMA), vimentin, collagen IV, laminin, and CD99, and they are negative for S-100 and neurofilaments. Ultrastructurally, they present pyknotic vesicles, elongated cytoplasmic processes with a discontinuous basal lamina, scattered intermediate filaments, and rudimentary intercellular junctional complexes. Perineurioma is a rare, benign neoplasm first described in 1978.¹ It is derived from the perineural cells in the absence of other elements of the nerve sheath. There are 2 main variants, intraneural and soft-tissue perineurioma, which share cytologic, ultrastructural, and immunohistochemical features with perineural cells, but present significant clinical and histological differences. Recently, a third variant called cutaneous sclerosing perineurioma has been described; this tumor typically affects the fingers and palms of young patients.

We present the case of a 54-year-old woman with no past history of interest. She was seen for a common wart

on the palm of the right-hand, which had been treated by electrocoagulation. On examination, 2 fibrous papules of 3 mm diameter were also observed on the palmar surface of both thumbs (Figure 1). The patient stated that they had been present for more than 20 years and that she had not sought medical care because they were stable and asymptomatic. Excision biopsy of the 2 papules showed similar findings: a well-defined but nonencapsulated proliferation formed of nodules (Figure 2) that, on greater magnification, showed a concentric (onion skin) pattern of spindle-shaped cells and a few epithelioid cells, with no atypia, in a dense collagen stroma (Figure 3A). Immunohistochemical analysis showed similar patterns in the cells making up the 2 nodular whorls, with intense EMA (Figure 3B) and vimentin expression. The other antibodies studied—cytokeratins, S-100, smooth-muscle actin, desmin, CD31, CD34, and factor XIIIa—were negative. The diagnosis was of multiple cutaneous sclerosing perineurioma.

Cutaneous sclerosing perineurioma is a benign tumor first described in 1997 by Fetsch and Miettinen.² Approximately 40 cases have been reported in the English-language

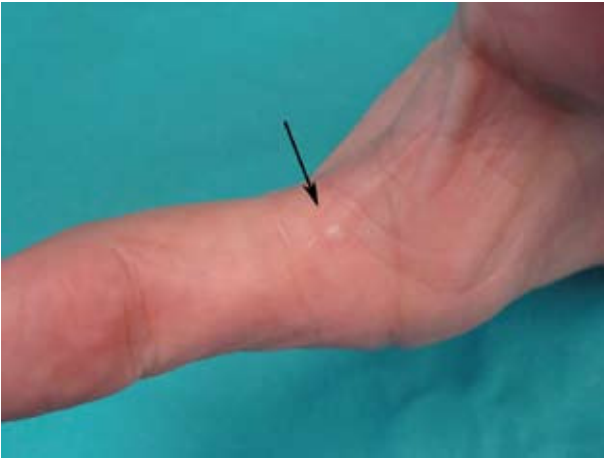


Figure 1. Skin-colored fibrous papule of 3 mm diameter on the palmar aspect of the left thumb.

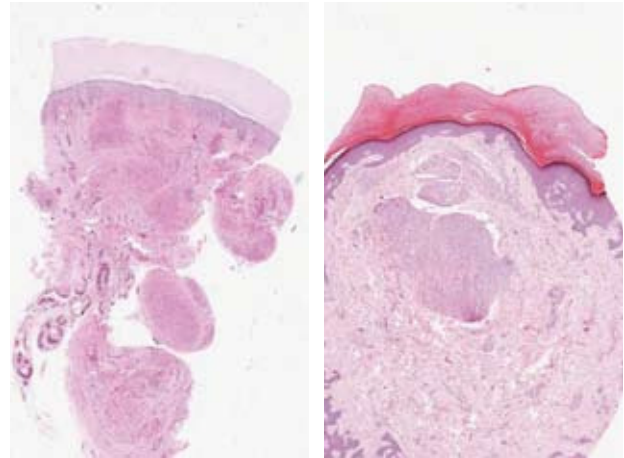


Figure 2. Low magnification image of both lesions: more nodular lesions in the dermis (hematoxylin-eosin, $\times 2$).

literature.²⁻⁷ It typically presents as a single, asymptomatic lesion on the fingers or palms of children or young adults, although it has also been reported in older patients (range, 9-67 years). It affects both sexes almost equally, although there is a male predominance in some series.² It usually presents as a papule or nodule of fibrous consistency and of a few millimeters in diameter, although there are cases that have reached a size of 3.3 cm. Occasionally it is painful. The time to diagnosis is variable, from a few months to 40 years. To date, only 1 case of bilateral cutaneous sclerosing perineurioma has been published.³ The tumor shows a benign behavior, with no recurrence after excision, and it is not associated with any other disease.

The diagnosis of cutaneous sclerosing perineurioma requires histological and immunohistochemical analysis. A small, well-defined nodule is observed in the dermis or fat; the nodule is dense, fibrous, and contains scattered ovoid, epithelioid, or spindle-shaped cells that adopt a trabecular, onion-skin, or parallel pattern within a hyaline stroma. There are no mitoses, atypia, or necrosis. Immunohistochemistry is essential for diagnosis, and is characteristically positive for EMA and vimentin, with the absence of expression of S-100 and neurofilaments. Smooth-muscle actin² and CD34 may be positive in some cases. Stains for factor XIIIa, desmin, and CD68 are negative. Other useful markers for diagnosis are CD99,⁴ CD10, glucose transporter type 1, and claudin-1. Electron microscopy reveals the characteristics of perineural cells. In some cases, the presence of Schwann cells and axons has been observed, demonstrating the close relationship with the peripheral nerve.³⁻⁷

Interestingly, as occurs with other tumors of the nervous system such as meningiomas, ependymomas, or schwannomas, alterations of chromosome 22—specifically, of gene *NF2*, on chromosome 22q11.2-12—have been observed in the 3 variants of perineurioma. This *NF2*

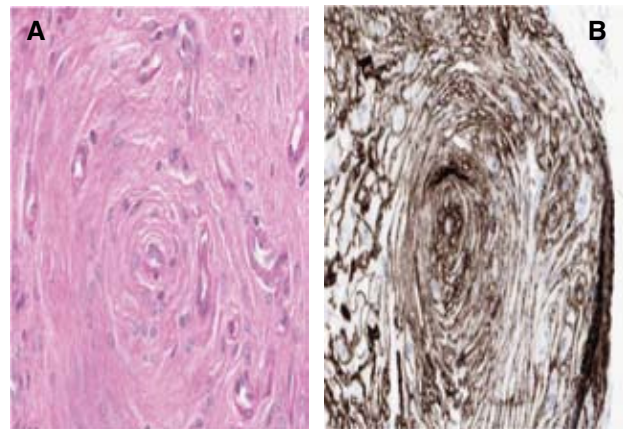


Figure 3. Onion-skin arrangement of the cells within the nodules (hematoxylin-eosin, $\times 15$). B, Positive cellular staining for epithelial membrane antigen (hematoxylin-eosin, $\times 20$).

tumor suppressor gene is also altered in meningioma, sporadic schwannomas, and familial neurofibromatosis 2. However, to date, there has been no case of perineurioma associated with neurofibromatosis.

Cutaneous sclerosing perineurioma is a little-known tumor that is possibly underdiagnosed and may be more common than reflected in the literature. As in this case, the lesion may remain undetected by the patient or histological study may not be performed due to its benign appearance. In addition, it is probably clinically confused with other, much more common fibrous lesions of the hands, such as giant cell tumor or tendon sheath fibroma, with a myxoid cyst or, if painful, with a glomus tumor. From a histological point of view, it must also be differentiated from sclerotic fibroma, epithelioid neurofibroma, and sclerosing adnexal tumors. We should therefore be aware of this tumor and include it in the differential diagnosis of fibrotic papular

lesions of the fingers and palms of young individuals. Immunohistochemistry is characteristic.

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Conflicts of interest

The authors declare no conflicts of interest.

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Two Patients With Cutaneous Manifestations of Edwards Syndrome

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To the Editor:

Edwards syndrome or trisomy 18 is a chromosomal disorder with a wide variety of clinical manifestations. The skin lesions, together with other multiple malformations, can orientate the neonatal diagnosis in those cases that have escaped detection during gestation. We present 2 cases affected by this rare disease.

Case 1: The patient was an infant born at term to a 42-year-old mother. On examination, the infant presented a dysmorphic facies with low-set, dysplastic ears, retrognathia, and hirsutism of the forehead. Further important clinical findings included fingernail and toenail hypoplasia, hypoplasia of the labia majora, with a prominent clitoris, and syndactyly of the second and third toes of the right foot, with the presence of a prominent calcaneus (rocker-bottom foot). In addition, the fingers adopted a characteristic position, with the second digit overriding the third (trisomy hand) (Figures 1 and 2). The syndrome had not been diagnosed during pregnancy, and the gestational ultrasound controls were reported as normal. In view of the clinical findings, confirmatory karyotyping was performed; the result was 47XX+18, establishing the definitive diagnosis of Edwards syndrome. Additional tests showed the presence of a persistent ductus arteriosus, ostium secundum-type

atrial septal defect, encephalic arachnoid cysts, and horseshoe kidneys. At 7 weeks of life, the infant developed respiratory insufficiency with acute pulmonary edema as a complication of the congenital cardiopathy, and died a few hours later.

Case 2: The patient was an infant born at term, in whom the ultrasound controls during the third trimester of gestation detected multiple neural tube defects, ventricular septal defect, and a possible transposition of the great vessels. For this reason, karyotyping was performed at week 34 using fluorescence in situ hybridization; the result was of a male fetus with trisomy 18 (47XY+18). At birth, the infant presented marked cyanosis with growth delay, an Apgar score of 2, and spinal dysraphism (lumbar myelomeningocele). There was also hirsutism of the forehead, fingernail and toenail hypoplasia, a dermatoglyphic pattern with ridges on the pulps of all the fingers, and the presence of bluish macules of reticular appearance affecting the skin of the trunk and limbs, compatible with cutis marmorata. The infant died 4 hours after birth.

Trisomy 18, described by Edwards in 1960,¹ is the second most common syndrome of multiple malformations after trisomy 21. It has an estimated incidence of 1 in 6000 to 1 in 13 000 live newborn