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CASE FOR DIAGNOSIS

Facial Papules and Intestinal Lipomatosis

Pápulas faciales y lipomatosis intestinal

Medical History

A 53-year-old woman with a history of endometrial carcinoma, hypothyroidism on treatment with thyroid replacement therapy, and recently diagnosed colonic lipomatosis was referred to our department for assessment of asymptomatic facial and axillary lesions of unknown duration.

Physical Examination

Multiple soft pedunculated tumors 2 to 3 mm in diameter were observed in both axillas on physical examination. A well-delineated papule 2 mm in diameter was found in the buccal mucosa (Figure 1), and more than 6 yellowish papules 2 to 4 mm in maximum diameter were observed in the malar regions and on the bridge of the nose (Figure 2), one of which was biopsied for histologic study.

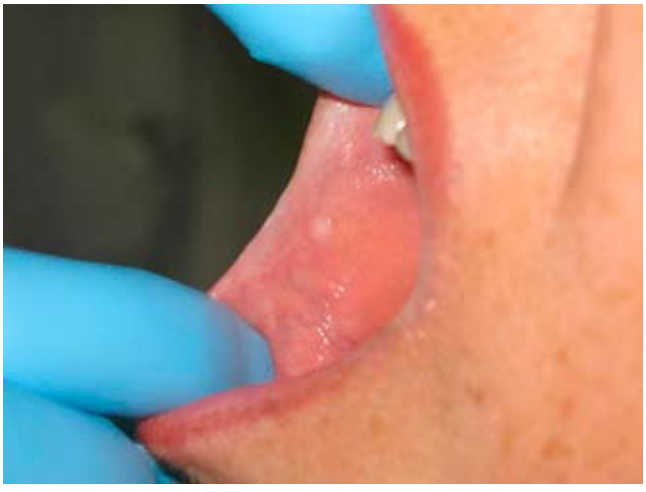

Figure 1

Histopathology

Histologic examination revealed a circumscribed unilobular mass in the papillary dermis, in continuity with the epidermis. The tumor cells were of squamous morphology and contained variable numbers of glycogen-rich vacuoles. Columnar cells with a clear nucleus were observed at the tumor periphery; these were similar to the cells found in the external root sheath of hair follicles (Figure 3).

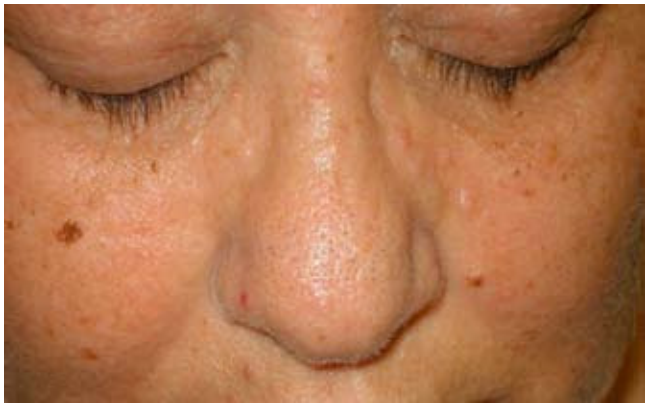

Figure 2

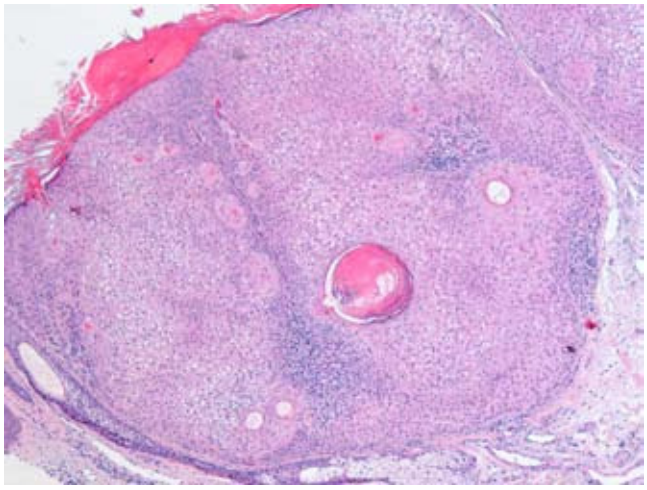

Figure 3 Hematoxylin-eosin, original magnification ×10.

What Is Your Diagnosis?

Diagnosis

Multiple trichilemmomas. Cowden syndrome.

Additional Tests

Cranial computed tomography and mammography revealed no clinically significant abnormalities. The results of fine needle aspiration biopsy of the thyroid were consistent with a diagnosis of autoimmune thyroiditis, and no malignant cells were observed.

Clinical Course and Treatment

The patient was also assessed by the gynecology, endocrinology, and urology departments without pertinent findings. She is currently awaiting phosphatase and tensin homolog (PTEN) gene analysis for Cowden disease.

Discussion

Cowden syndrome is an autosomal dominant disorder with an estimated incidence of 1/1 000 000 population. It is characterized by multiple mucocutaneous hamartomas and a high risk of developing tumors.[1]

The diagnosis is based on a series of established criteria (major, minor, and pathognomonic).[2] Our patient presented 1 pathognomonic (facial trichilemmomas), 1 major (endometrial carcinoma), and 3 minor criteria (gastrointestinal hamartomas, soft fibromas, and thyroid abnormalities).

Mucocutaneous signs are present in 90% to 100% of patients with the syndrome. Trichilemmomas and cutaneous and mucosal fibromas are the 2 most common findings, occurring in 83% and 84% of patients, respectively. Other, less common lesions are acral (64%) and palmoplantar (41%) keratoses,[3] hemangiomas, café-au-lait spots (9%), and lipomas.[4]

The neoplasm most often associated with Cowden syndrome is breast carcinoma, followed by cancers of the thyroid and endometrium. The incidence of other .malignancies, such as renal carcinoma, colorectal adenocarcinoma, and melanoma, also appears to be elevated in these patients. Gastrointestinal polyposis is observed in 70% to 80% of patients with Cowden syndrome, hamartomatous cerebrovascular malformations in 30%, and there is also an increased incidence of Lhermitte-Duclos disease (dysplastic gangliocytoma of the cerebellum).[4]

Mutations in the *PTEN* gene have been found in 80% of individuals with Cowden syndrome. Since the protein phosphatase encoded by the *PTEN* gene acts as a tumor suppressor, these mutations result in dysregulation of cell proliferation and apoptosis.[5] *PTEN* mutations have also been identified in other diseases, including Bannayan-Riley-Ruvalcaba syndrome and Proteus syndrome.[4] Our patient had no confirmed family history of Cowden syndrome and is currently waiting for genetic testing.

Recommended surveillance measures in patients with Cowden syndrome include an annual thyroid examination and ultrasound beginning at 18 years of age, breast examination every 6 months from 25 years of age, and annual mammography from 30 years of age.[4] Given that the first clinical signs in these patient tend to be dermatological, annual examination of patients with a family history of Cowden syndrome is an important diagnostic measure.

Conflict of interest

The authors declare that they have no conflict of interest.

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