Discrete Papular Dermal Mucinosis With Hashimoto Thyroiditis: A Case Report

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The cutaneous focal mucinoses are a group of connective tissue disorders characterized by deposition of mucin found either focally or diffusely in the dermis. A 47-year-old woman presented with asymptomatic flesh-colored papules on the neck, inguinal area, intergluteal area, vulvar area, and extremities of 5 months' duration. There was no history of preceding trauma or insect bites. The patient had undergone a subtotal thyroidectomy 21 years prior but had not used any thyroid medication before she was referred to our clinic. Thyroid ultrasonography was consistent with Hashimoto thyroiditis. During dermatologic examination, flesh-colored, well-defined, smooth papules that measured approximately 1.5×1 cm in size on the genital region, fingers, face, and scalp were seen. Histopathologic examination of a lesional biopsy revealed no abnormalities in the epidermis. Alcian blue staining showed that abundant deposits of dermal mucin had replaced collagen in the dermis.

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Case Report

A 47-year-old woman presented with thickening of the dorsum nasi of 5 months' duration; bulging on her hands; asymptomatic flesh-colored papules on her neck, inguinal area, intergluteal area, vulvar area, and extremities; and arthralgia. After approximately 15 days, bulges on her hands regressed but flesh-colored papular lesions on the fingers appeared. Then similar lesions occurred on the genital area and the neck. During this time, the patient was being followed by the rheumatology department for fibromyalgia and connective tissue disorder. Because of the cutaneous lesions, she was sent for dermatologic evaluation. There was no history of preceding trauma or insect bites. The patient had undergone a subtotal thyroidectomy 21 years prior but had not used any thyroid medication before she was referred to our clinic.

During dermatologic examination, we found flesh-colored, well-defined, smooth papules that measured approximately 1.5×1 cm in size on the genital region, fingers, face, and scalp. The lesions extended from the labium majus and labium minus to the intergluteal and coccygeal region (Figures 1–3). They also appeared symmetrically at the level of the anterior femoral region and on the dorsal and palmar areas of the hands. Lesions that were fixed on hard bone formation under the scalp and on the mandibular zone were palpated.

The radiograph of the cranium and computed tomography of the paranasal sinuses that were taken at this time were evaluated as normal and no pathology was found by the head, ear, nose, and throat department. Results from a skin biopsy revealed no abnormalities in the epidermis; Alcian blue staining showed an increase in blue staining, which indicated an increase in dermal mucin that had replaced the collagen (Figure 4). With these findings, the patient was diagnosed with papular dermal mucinosis.

A complete blood cell count, sedimentation rate, liver function tests, kidney function tests, urinalysis, protein electrophoresis, thyroid function tests, and antithyroglobulin and antimicrosomal tests were performed to exclude any systemic diseases; they were all within reference range. Antinuclear and anti-DNA antibodies were negative. Because multiple nodules were observed on an ultrasound of the thyroid gland, the patient was evaluated by the endocrinology department and was diagnosed with Hashimoto thyroiditis; thyroid hormone treatment was started.

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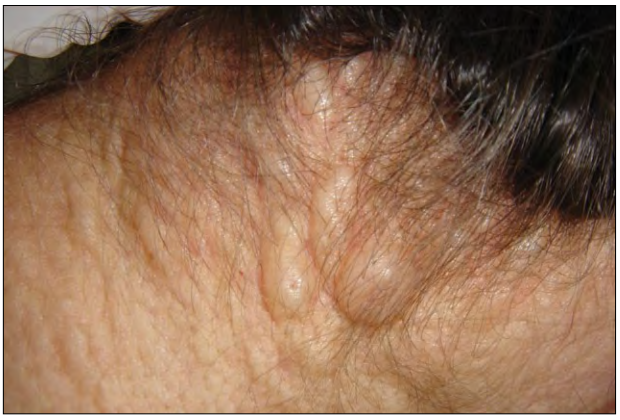

Figure 1. Well-defined, flesh-colored papules on the neck.

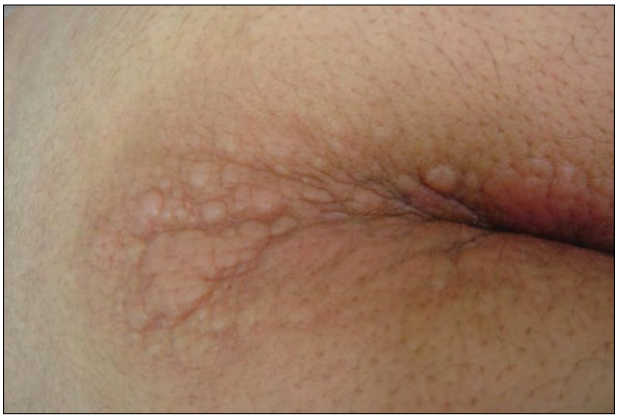

Figure 2. Lesions on the coccygeal region.

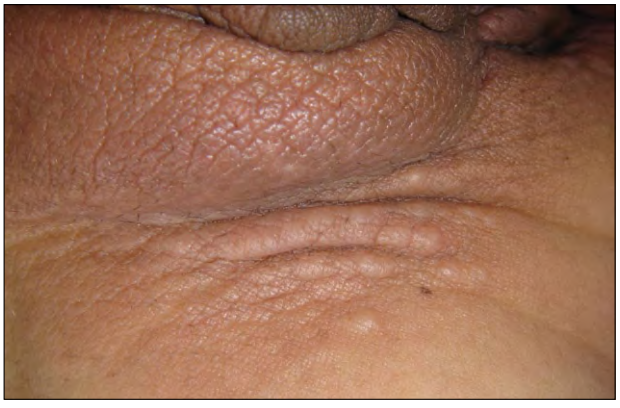

Figure 3. Flesh-colored lesions on the labium majus and inguinal region.

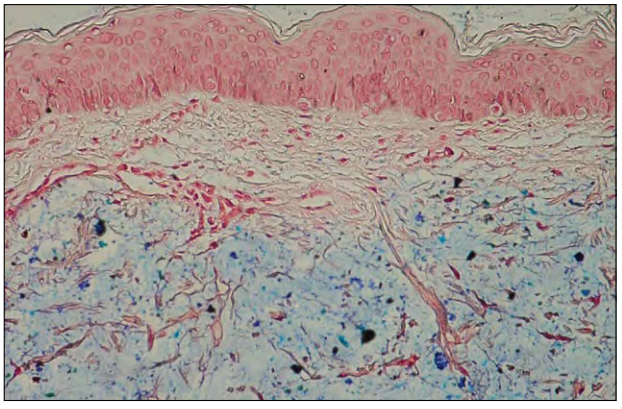

Figure 4. Dermal mucin deposition (Alcian blue, original magnification ×100).

Treatment with methylprednisolone (40 mg daily) was stopped by tapering doses after thyroid treatment started. After 2 years of follow-up, no improvement of the lesions had been achieved.

Comment

Papular mucinosis is a rare and chronic disorder. It was described by Montgomery and Underwood[1] in 1953. The cutaneous focal mucinoses are a group of connective tissue disorders characterized by deposition of mucin found either focally or diffusely in the dermis.[2,3] We present a case of a 47-year-old woman with Hashimoto thyroiditis and papular eruptions on her neck and genital area of 5 months' duration.

The pathophysiology of cutaneous mucinosis is unclear. Based on the study of patients with various mucinoses, it has been suggested that there may be an unknown circulating factor that stimulates fibroblasts to produce mucin.[2] Cytokines, paraproteins, chronic antigenic stimulation, viral infections, and inflammation may contribute to the pathogenesis. However, further studies are needed to determine if these factors play a role.[2-4]

Lesions usually occur in adults and are found on the face, neck, trunk, or extremities, but not over the joints of the hands, wrists, or feet. Lesions are flesh-colored to white, smooth surfaced, and approximately 1 cm in diameter.[2,5] Cutaneous eruptions may be generalized or localized in papular mucinosis. Systemic organ dysfunction does not occur in localized papular mucinosis.[5] There was no organ involvement in our patient.

Papular mucinosis can be seen as a cutaneous manifestation of idiopathic systemic capillary leak syndrome.[6] Dermal mucinosis mimicking cryptococcal cellulitis has been identified.[7] According to an updated classification of papular mucinosis 2 clinicopathologic subtypes have been described: (1) a generalized papular and sclerodermoid form (also called scleromyxedema) and (2) a localized papular form. The localized papular subtype is further subdivided into acral persistent papular mucinosis involving only the extensor surface of the hands and

wrists, papular mucinosis of infancy, self-healing papular mucinosis, and a discrete papular or nodular form involving any site.[8] We classified our patient with the discrete papular form.

The treatment of mucinosis is difficult. Spontaneous healing rarely has been observed.[5] Intralesional triamcinolone acetonide has been successfully used to treat a case of cutaneous focal mucinosis.[4] There was no improvement in our patient's lesions after thyroid hormone and methylprednisolone treatment.

Conclusion

We present a case of discrete papular mucinosis associated with Hashimoto thyroiditis. Although our patient's thyroid hormone levels were within reference range, thyroid nodules had been detected on ultrasound examination. Therefore, we concluded that thyroid function tests are not sufficient for some patients and thyroid ultrasound should be done to exclude thyroid disease.

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