Unilateral pretibial myxedema in Graves' disease: A case report.

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ABSTRACT:

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Pretibial myxedema is cutaneous induration of the shin due to mucin deposit. It is usually associated with Graves' disease and characterized by bilateral thickening of the skin with violaceous or slightly pigmented. We reported a case of unilateral pretibial myxedema which is rare presentation. The lesion was improved by topical steroid with occlusion.

Key words: Pretibial myxedema, Unilateral, Graves' disease

บทคัดย่อ:

ชนกนันท์ จรเสมอ ผื่นหนาบริเวณหน้าแข้งด้านเดียวในผู้ป่วยไทรอยด์เป็นพิษ วารสารโรคผิวหนัง 2559; 32: 279-282.

โรงพยาบาลโรคผิวหนังเขตร้อนภาคใต้จังหวัดตรัง

Pretibial myxedema เป็นภาวะที่ผิวหนังมีการหนาตัวขึ้น ส่วนใหญ่เกิดขึ้นที่หน้าแข้ง มักพบร่วมกับภาวะไทรอยด์เป็นพิษ รอยโรคมีลักษณะบวมแดง หรือมีสีเข้มขึ้น และเป็นทั้งสองข้าง รายงานนี้เป็นการนำเสนอผู้ป่วยหญิงไทยที่ได้รับการวินิจฉัยว่าเป็น pretibial myxedema บริเวณหน้าแข้งขวา เพียงข้างเดียว ซึ่งพบไม่บ่อยผู้ป่วยรายนี้ได้รับการรักษาด้วยยาทาสเตียรอยด์ ผื่นดีขึ้นเล็กน้อย

คำสำคัญ: ผื่นหนาบริเวณหน้าแข้ง, ข้างเดียว, ไทรอยด์เป็นพิษ

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Introduction

Pretibial myxedema is cutaneous induration of the shins due to mucin deposit.[1] It is most common seen in hyperthyroidism especially Graves' disease and characterized by bilateral, non-pitting thickening skin and often have an orange-peel appearance.[2,3] A recent literature review search revealed no case report of unilateral pretibial myxedema. We present a patient with unilateral pretibial myxedema which is rare presentation.

Figure 1

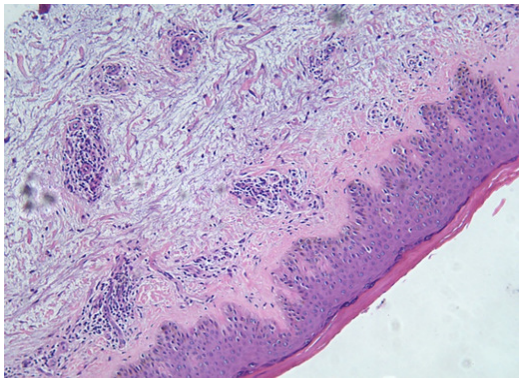

Figure 2

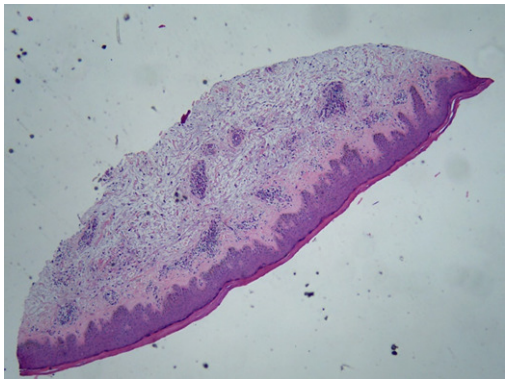

Figure 3

Case report

A 62-year-old female presented to the outpatient clinic with itching erythematous plaque on right leg for 2 years. The plaque was firm, non-pitting, not tender, brown-colored with orange peel appearance (Figure 1). She had history of Graves' disease which was controlled by methimazole 5 mg three times a day. She had no symptom of hyperthyroid. She also denied history of trauma on the legs.

On physical examination, she had forward protrusion of the eyes and bilateral upper and lower eye lid retraction. She had no thyroid enlargement. The other of the systemic examination was remarkable.

Skin biopsy of the lesion was done. The histopathology of the specimen shows acanthotic epidermis with hyperkeratosis. The dermis shows a superficial perivascular lymphocytic infiltration. There is some widening of collagen fibers with bluish material deposition in the upper dermis (Figure2, 3). The diagnosis

according to clinical and the histopathology report was unilateral pretibial myxedema. The patient was treated by topical steroid with occlusion. The lesion was slightly improved with no progression after 6-month follow up.

Discussion

Pretibial myxedema is an uncommon dermopathy which associated with autoimmume thyroid disease.[4]It results from the accumulation of glycoaminoglycans and mucin materials. The exact pathogenesis is still unclear. The hypothesis is TSH receptors in the fibroblasts bind to TSH receptor antibodies. This interaction provokes cascade of immune process and cytokine reaction which activate fibroblast proliferation and subsequent mucin production. Insulin like growth factor may also play a role. Smoking, thyroid dysfunction, trauma or surgery of lower extremities and overweight are risk factors of this dermopathy.[1,2,5]

Clinically, the patients develop bilateral non-pitting thickening and induration of the skin with violaceous or slightly pigmented and often have an orange-peel appearance. [3,6] The lesion usually located on the anterolateral aspect of the lower legs and may spread to the ankles and dorsum of feet, rarely located on the neck, upper back, shoulders, elbows, knees and pinnae.[1,2,7]

The initial treatment is minimizing risk factors, such as quitting smoking, normalizing thyroid function, avoiding trauma and reducing weight. [5] For pharmacological treatment, medium to high potency topical corticosteroid with or without occlusion or intralesional injection can reduce the pruritus and may improve the lesion.[1,2,4] In a clinical trial, the complete response rate of intralesional corticosteroid injection once a week for seven weeks was 89.1%.[4] Although the patient are asymptomatic, the local steroid therapy should start early to prevent secondary processes such as fibrosis and lymphatic obstruction.[5,8,9] Plasmapheresis, intravenous immunoglobulin, gradient pneumatic compression, octreotide, pentoxifylline, rituximab have been used in case report.[1,2,10,11]

For this case, the patient presented with unilateral pretibial myxedema which is rare presentation. No case report has been published. The diagnosis was confirmed by biopsy result. She was treated by topical steroid with occlusion. For 6-month follow up, the lesion was improved and had no progression.

Conclusion

To the best of our knowledge, this is the first case report of unilateral pretibial myxedema which diagnosis was confirmed by histopathology result.

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