

SKIN FOCUS

PRURIGO NODULARIS

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Description

Prurigo nodularis is characterised clinically by multiple chronic intensely pruritic nodules on easily accessed skin. Lesions are due to repeated scratching and picking.

Aetiology

Although the cause is unknown, emotional stress is a contributory factor in some patients, and affected patients may be compulsive 'pickers'. From 65% to 80% of patients are atopic with associated xerosis. In 20% the condition starts after an insect bite. Gluten enteropathy has been found in some patients. Individuals with diabetes may be predisposed to developing prurigo nodularis. Associated pruritus also has other aetiologies, including systemic diseases such as hyperthyroidism, hepatic disease (hepatitis C), renal dysfunction, lymphoma, iron deficiency and HIV infections. Recently, the possibility of an association with *Helicobacter pylori* has been raised.

Clinical features

Prurigo nodularis occurs primarily in adults from the age of 20 to 60 years. Numerous 1-3 cm erythematous or hyperpigmented (Figs 1 and 2) nodules with a warty surface occur on the extensor aspect of the arms and legs (Figs 3 and 4). The lumbosacral area, posterior neck, and dorsal aspect of the hands are other reachable areas typically involved. The sparing of the mid-back is referred to as the 'butterfly' sign. The patient is tormented by crises of pruritus. The disease runs a protracted course.

Laboratory findings

In generalised prurigo of recent onset (<1 year), systemic causes of pruritus should be evaluated and excluded, i.e. physical examination (e.g. lymphadenopathy) and investigations including full blood count, erythrocyte sedimentation rate (ESR), liver function tests, creatinine, ferritin, fasting glucose and thyroid function tests. Additional evaluation should be done if there is a suspicion of lymphoma, and chest X-ray and an abdominal CT scan may be required.

Although the diagnosis is primarily a clinical one, very rarely skin biopsy may be required. The histological changes resemble those of lichen simplex chronicus, but hyperkeratosis is more marked, and the downward projection of the epidermis is so marked as to suggest pseudo-epitheliomatous hyperplasia. The dermal infiltrate is dense and there may be neural and vascular hyperplasia. There may be extracellular deposits of eosinophilic granule proteins such as major basic protein and eosinophil-derived neurotoxin. There are increased numbers of calcitonin gene-related peptide and substance P immunoreactive nerve-fibre bundles in the nodular lesions and neuropeptides may be a fac-



Figs 1 & 2. Pigmented lesions of prurigo nodularis on the legs.



Figs 3 & 4. Prurigo nodularis on extensor surfaces.

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Fig. 5. Early lesions of prurigo nodularis may be mistaken for lichen planus.

tor causing the intense pruritus. An increase in the number of merkel is also seen.

Differential diagnosis

The differential diagnosis of prurigo nodularis includes perforating disorders associated with chronic renal failure, pemphigoid nodularis, multiple kerato-acanthomas, hypertrophic lichen planus (Fig. 5) and nodular scabies.

Treatment and prognosis

Prurigo nodularis is resistant to treatment and the condition may last for years. Cessation of itching and scratching is critical to lesion resolution and successful treatment. High-potency topical corticosteroids can be used with occlusion to enhance penetration and provide a barrier to scratching. An effective treatment option is corticosteroid-impregnated tape (Cordran), applied to lesions daily, and topical capsaicin has also been used. However, these two products are currently not available in South Africa. Intralesional steroid injections (dexamethasone and triamcinolone) can be given at 4-6-weekly intervals. Cryotherapy is sometimes successful.

Light therapy (narrow-band ultraviolet B or psoralen plus ultraviolet A [PUVA]) is beneficial for severe generalised cases. Cyclosporin and azathioprine have also been used with success in some cases. Oral naltrexone and thalidomide may also prove effective for those with refractory prurigo nodularis. The use of an anti-obsessive-compulsive drug (SSRI agents) or conventional antidepressants combined with dermatological therapies is an ideal way to manage these patients. Doxepin can be used as both an antidepressant as well as an antipruritic and antihistaminic medication.

ACKNOWLEDGEMENT AND FURTHER READING

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Color Textbook of Pediatric Dermatology 3/e

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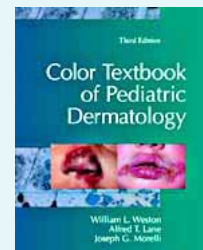
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