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Prurigo nodularis—A case report

Prurigo nodular – un caso clínico

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A 60-year-old retired man with a medical history of arterial hypertension, type 2 diabetes mellitus, grade II obesity (BMI 38 kg/m^2), dyslipidemia and severe obstructive sleep apnea syndrome. He presented to his primary care center with pruritic lesions on the lower quadrants of the abdomen and more prominently on the gluteal region and both thighs, with a two-week history of progression. On physical examination, nodular lesions measuring approximately 1 cm in diameter were observed. These lesions exhibited abrasions, erythema, and crusting (Fig. 1), with some lesions showing yellowish exudate. After a diagnosis of prurigo nodularis, he was prescribed oral antihistamine (bilastine 20 mg every 12 h for 2 weeks), topical corticosteroid (betamethasone cream once daily for 2 weeks), and topical antibiotic (mupirocin once daily for 7 days). A follow-up appointment was scheduled for 3 weeks, revealing significant improvement of the lesions, although complete resolution was not achieved.

Prurigo nodularis (PN) is a chronic inflammatory skin disorder characterized by the presence of multiple symmetrically distributed, intensely pruritic, and hyperkeratotic nodules that can significantly impact a patient's quality of life due to intense itching and sometimes challenging treatment.[1,2]

PN is a diagnosed clinically, necessitating a comprehensive history and physical examination for accurate diagnosis, and is relatively infrequent in primary care settings, underscoring the importance of recognizing the diagnosis and implementing appropriate treatment measures.[1,3] The hallmark of PN is severe itch that surpasses the intensity of other chronic pruritic skin conditions like atopic dermatitis and psoriasis. During physical examination, patients with PN typically present with elevated, firm, and nodular skin lesions ranging in size from a few millimeters to 2 cm.[1,3] These lesions are frequently excoriated and covered with crust due to persistent itching and subsequent scratching by patients.[3] This clinical presentation aids in diagnosing PN based on pruritic lesions.

Figure 1 Clinical image of the patient's lesions.

While the exact cause of this condition remains unknown, previous studies highlight the significant interaction and dysregulation between immune cells and neuronal circuitry as factors in the pathogenesis of PN.[3] The pathogenesis

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of PN is also thought to be a cutaneous reaction pattern due to vicious cycles of chronic itch followed by repeated scratching.[3] Various comorbidities have been linked to PN, although it's uncertain whether these conditions directly contribute to PN or arise as a consequence of a shared systemic process responsible for the skin lesions of PN.[4] For instance, PN has been notably linked with type 1 and type 2 diabetes mellitus.[4] Additionally, patients with PN tend to exhibit higher odds of hypertension, hyperlipidemia, and obesity.[4] In this case report, the patient exhibits type 2 diabetes, hypertension, and obesity, aligning with the common comorbidities associated with prurigo nodularis.

Effective treatment can be difficult to achieve, and sometimes several attempts have to be made. In addition to this, most of the treatments are used off-label. The main goal of treatment is to reduce itching and the lesions. In most cases a multimodal approach and concomitant treatment is necessary.[5] Topical treatment is often considered first-line treatment, especially corticosteroid along with emollients. Other topical treatments include calcineurin inhibitors, vitamin D analogs and capsaicin, that can be used when the topical corticosteroid proved to be inadequate.[6] UV phototherapy is a feasible treatment choice, in certain type of patients.[5] Systemic therapeutic choices include antihistamines, immunosuppressants, gabapentinoids, opioid modulators, neurokinin 1 receptor antagonists, antidepressants and biologic drugs, that can be used in refractory cases.[5] Benefits versus risk of all these drugs should be considered in the first place, before starting any treatment.

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Conflict of interest

None.

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