

Notalgia paresthetica and neuropathic itch. Case report

Notalgia parestésica e prurido neuropático. Relato de caso

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ABSTRACT

BACKGROUND AND OBJECTIVES: Notalgia paresthetica is a neuropathic sensory syndrome located in the dorsal region between T2-T6 dermatomes and is characterized by a chronic evolution with periods of remission and exacerbation. The objective of this study was to demonstrate a case of notalgia paresthetica, from its clinical and laboratory investigation to the treatment adopted.

CASE REPORT: A 77-year-old female patient, retired, attended the Outpatient Pain Service of the University Hospital of the Federal University of Maranhão. The main complaint was severe pruritus in the right dorsal region with extension to the breasts, associated with intermittent pain, burning, shock and tingling, worsening with physical effort and movement. Her sleep quality worsened because of the pain. At the physical examination, no pain was reported on palpation of the site, with mild hypoesthesia in T5 and T6 dermatomes, without altering the thermal sensitivity. She denied a history of skin lesions. The patient received conservative pharmacological treatment, with significant improvement in pain and sleep quality after six months.

CONCLUSION: Notalgia paresthetica is a syndrome of unknown etiology, and the lack of studies makes it difficult to optimize the indications and recommendations to direct the treatment. This report illustrates the handling of a case of paresthetica notalgia where gabapentin was used as therapeutic management for pain control, for which it proved to be efficient.

Keywords: Neuralgia, Pain, Pharmacologic treatment, Pruritus.

RESUMO

JUSTIFICATIVA E OBJETIVOS: A notalgia parestésica é um distúrbio neuropático sensitivo que acomete a região dorsal entre os dermatômos de T2 a T6, caracterizando-se por uma evolução crônica com períodos de remissão e exacerbção. O objetivo deste relato foi descrever um caso de notalgia parestésica, desde a sua investigação clínica e laboratorial até a conduta adotada.

RELATO DO CASO: Paciente do sexo feminino, 77 anos, aposentada, compareceu para atendimento no Serviço Ambulatorial de Dor do Hospital Universitário da Universidade Federal do Maranhão, tendo como queixa principal prurido intenso em região dorsal direita com extensão para as mamas, associada a dor intermitente, em queimação, choque e pontadas, piorando com esforço físico e movimento. Seu sono não era reparador. Ao exame físico, não referiu dor à palpação do local, com discreta hipostesia em dermatômos T5 e T6, não havendo alteração de sensibilidade térmica. Negava histórico de lesões de pele. A paciente recebeu tratamento conservador farmacológico, havendo melhora importante do prurido, da dor e da qualidade do sono após seis meses.

CONCLUSÃO: A notalgia parestésica é uma síndrome de etiologia ainda desconhecida, em que a escassez de estudos dificulta uma otimização das recomendações para direcionar o tratamento. Este relato ilustrou o manuseio de um caso de notalgia parestésica onde o tratamento com gabapentina foi empregado para o controle de dor, para o qual se mostrou eficiente.

Descritores: Dor, Neuralgia, Prurido, Tratamento farmacológico.

INTRODUCTION

Notalgia paresthetica (NP), first mentioned in 1934 by Astwazaturrow¹ derives from the Greek vocabulary, *notos* (dorsum) and *al-gos* (pain), and is poorly described in the literature. Nevertheless, it is believed to be a common but underdiagnosed condition^{2,3}.

It is a sensory neuropathic syndrome that affects the dorsal region between the T2 to T6 dermatomes and is characterized by a chronic evolution with periods of remission and exacerbation. The diagnosis is clinical, and the symptoms are localized itching associated with burning sensation, paresthesia, hyperesthesia and may present a well-delimited area of hyperpigmentation in the interscapular region³.

The etiology is not well established, but is considered multifactorial, including genetic predisposition, increased local skin innervation, chemical agent neurotoxicity, and spinal nerve injury due to chronic trauma and/or compression by degenerative spinal changes, or adjacent soft tissues⁴. Also, females have been described in the literature as the most affected, but there is no

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preference for race. It is a disease that appears in adulthood, considered benign, but directly affects the quality of life of patients³. The objective of this report was to show an NP case, since its clinical and laboratory investigation to the adopted approach.

CASE REPORT

Female patient, 77 years old, retired, attended for treatment at the Chronic Pain Outpatient Clinic of the University Hospital of the Federal University of Maranhão (HUUFMA), reporting as main complaint intense itching in the right dorsal region, extending to the inframammary region, associated with intermittent pain, burning sensation, shock and stinging, worsening when moving or making efforts. Sleeping was not restful. Among her personal history, she reported a diagnosis of osteoporosis and tuberculosis five years before the appointment, denying diabetes *mellitus*, hypertension, and allergies. She denied a history of dorsal skin lesions. On physical examination, the patient had no palpable tense muscle band and trigger points in the affected region. There was no pain on palpation of the site, with mild hypoesthesia in T5 and T6 dermatomes, with no change in thermal sensitivity. The dermoscopy was normal.

Nuclear magnetic resonance (NMR) of the cervical spine, thorax, and pelvis showed no changes. The lumbar NMR showed a degenerative discopathy with mild disc protrusion. Chest computed tomography (CT) showed bilateral apical pleural thickening and bronchiectasis.

The diagnostic hypothesis was NP, based on the main complaint of severe itching, subjective description of pain, and signs present on physical examination. The patient started the clinical treatment with gabapentin (300 mg) every 12 hours, orally, and codeine (30 mg) in case of pain.

After six months of treatment, the patient reported complete remission of the pruritus, with only a mild back pain in that interval, with full recovery using codeine. There was also an improvement in sleep quality. In addition to the pharmacological treatment, respiratory and motor home physical therapy were associated.

DISCUSSION

In this report, the case presented was of a patient with PN referring intense and intermittent pruritus and radiated back pain to the right breast, with shocks, stinging, and burning. NP, first mentioned in 1934, is described as a sensory neuropathic syndrome characterized by pruritus, pain, and upper back hypoesthesia, between the dermatomes T2 and T6^{1,5}. It has no preference for a race and is described worldwide. It is not considered a severe condition but has a significant impact on the quality of life³. It is clinically characterized by localized itching associated with pain, usually intermittent and paroxysmal, with varying intensity. In addition to a burning or cold sensation, there are complaints of paresthesia, hyperesthesia, and well-circumscribed

hyperpigmented skin in the dorsal region, secondary to chronic scratches and friction of the symptomatic area^{2,5-9}.

The etiology is still unknown, although it is thought to be neuropathic pruritus caused by sensory nerve compression involving the posterior branches of the nerve roots from T2 to T6, and is mainly associated with degenerative changes in the vertebrae^{2,5}. Eventually, nerve compression can cause very intense dysesthesia and paresthesia, typically located in the region of the skin that is innervated by the injured nerve. This painful sensation occurs when the neurons responsible for integrating or transporting the itching perception are injured in any part of the peripheral or central nervous system, accounting for about 8% of all chronic pruritus cases⁶⁻⁸.

Systemic drugs currently used to treat patients with NP, with favorable results in relieving pruritus and pain, include gabapentinoids, tricyclic antidepressants, antihistamines, non-steroidal anti-inflammatory drugs, oral muscle relaxants, and anticonvulsants³. In this case, we chose to use gabapentin, achieving satisfactory results as presented in some studies, with decreased pain intensity and pruritus^{9,10}.

Other available forms of treatment described are topical capsaicin cream, topical corticosteroids, topical anesthetics (lidocaine), skin stimulation, paravertebral nerve block, and spinal nerve decompression surgery. However, there is no treatment considered as the standard. The evaluation of its effectiveness in NP is hampered by the lack of papers on the subject^{2,3}.

CONCLUSION

This report corroborated some findings already described in the literature, such as the good response to the use of gabapentinoids in patients diagnosed with PN. However, further studies are needed to characterize better and understand the pathogenesis of this disease, as well as to optimize and standardize the chosen therapy.

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