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CASE REPORT

A rare cause of back pain in children: Notalgia paresthetica

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SUMMARY

Notalgia paresthetica (NP) is a rare sensory neuropathy and is not a well-known condition. As a result, the diagnosis is often overlooked, and back pain may be the initial presenting symptom. Back pain is a common locomotor system complaint in children. Here, we present a 15-year-old female patient who experienced back pain, itching, and tingling for the past 4 months and was diagnosed with NP. Recognition of NP as a rare cause of back pain in children is important for initiating targeted therapy. Considering NP in the differential diagnosis of children presenting with back pain allows early diagnosis and treatment and helps prevent pain from becoming chronic.

Keywords: Back pain; children; neuropathy; notalgia paresthetica.

Introduction

Notalgia paresthetica (NP) is a sensory neuropathy generally characterized by back pain, hyperpigmentation, pruritus, and paresthesia or hyperesthesia of the skin around the scapula.[1] The disease is progressive and involves periodic episodes of inflammation and remission. It is usually unilateral and may persist for months or even years after onset.[1] A careful medical history and proper physical examination are generally sufficient for diagnosis.[2] NP is primarily a disease of adulthood and is rarely seen in children.[3] Although there is no definitive cure for NP, various treatment options have been reported to alleviate disease-related symptoms. To the best of our knowledge, there are no reported pediatric cases of NP in the literature that are not associated with MEN 2A. The aim of this case presentation is to draw attention to NP as a rare cause of back pain that may also occur in children.

Case Report

A 15-year-old female patient presented with gradually increasing back pain, tingling, and itching in the dorsal region for four months. She had been examined several times by a family physician because of back pain, and an analgesic had been prescribed approximately three months earlier. The patient reported that her pain decreased temporarily after analgesic treatment but subsequently recurred. As her complaints persisted, she was referred to an orthopedist. No pathology was detected on plain radiography or magnetic resonance imaging (MRI), and she was subsequently referred to a physiotherapy clinic. Written informed consent was obtained from the patient.

The patient was right-handed, and the only notable finding in her medical history was carrying a heavy backpack. The pain was localized to the left side and was not accompanied by neck or low back pain. The pain decreased at night and with heat application; however, heat increased the severity of itching. Tingling was present throughout the day, increased at night, and decreased with heat. On physical examination, a unilateral 3×5cm hyperpigmented skin lesion with indistinct borders was observed at the inferomedial border of the left scapula, lateral to the thoracic spine. Cervical and thoracic joint ranges of motion were full, and thoracic kyphosis was mildly

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increased. Except for hypoesthesia in the hyperpigmented area, the neurological examination was normal. Systemic examination findings and laboratory results were within normal limits. Cervical and thoracic radiographs revealed only a slight increase in thoracic kyphosis, and cervical and thoracic MRI findings were normal.

The diagnosis was established following consultation with a dermatologist. Initially, an analgesic (paracetamol 1500 mg/day) and a topical anesthetic (lidocaine pomade) were prescribed. The patient was enrolled in a physiotherapy program that included postural correction exercises, paraspinal muscle strengthening, scapular strengthening, and pectoral muscle stretching exercises. Education on proper techniques for carrying heavy loads was also provided. As the patient's pain did not decrease sufficiently at the follow-up examination after ten days, the analgesic was discontinued and a nonsteroidal anti-inflammatory drug (NSAID) (nimesulide 200mg/day) was initiated.

At the subsequent follow-up visit, her complaints had decreased. Back pain was mild and intermittent, and no medication was required. Continuation of the exercise program was recommended. Dermatological follow-up was advised, as no change was observed in the skin lesion.

Discussion

In this case report, we present a 15-year-old female patient with NP. Her main symptoms were back pain, tingling, and itching in the dorsal region for four months. Although back pain is a common complaint, fewer than 100 cases of NP have been described in the literature.[4] This may be because the disease is not well recognized and is generally considered benign. The interval between symptom onset and diagnosis is often remarkably long, and some patients are not diagnosed until more than 20 years after symptom onset.[5] In our case, this interval was approximately four months.

The diagnosis of NP is usually based on clinical findings.[2–4] Medical history and physical examination constitute the cornerstone of diagnosis, and the associated skin lesion is typically characteristic. Relevant laboratory investigations should be performed to exclude MEN 2A.[6] Imaging modalities such as X-ray, computed tomography, or MRI are not always required for the diagnosis of NP.[2,4] In our patient, although the skin lesion was typical and located in a characteristic region, it had not been previously evaluated by a dermatologist, which likely contributed to a delay in diagnosis. The most frequently reported neurological finding in NP is hypoesthesia localized to the center of the lesion, as observed in our patient.

Treatment of NP is mainly symptomatic unless an underlying cause can be identified and addressed. Appropriate treatment during childhood or adolescence may reduce the risk of pain becoming chronic and persisting into adulthood.[4,7] Identifying and eliminating factors that may predispose children and adolescents to chronic pain later in life is therefore crucial.[4] Topical local anesthetics and capsaicin have been used in the treatment of NP.[8] Topical local anesthetics are thought to exert their effects by stabilizing neural membranes. In more severe cases, paravertebral nerve blockade may be performed and can result in long-term remission.[9] Additionally, topical antipruritic agents as well as topical or intralesional corticosteroids may be beneficial.[10] Paracetamol and NSAIDs can be used for pain management.[11] Physiotherapy also plays an important role in addressing both pain and functional impairment.[12]

Consistent with recommendations in the literature, we successfully treated our patient using simple analgesics (paracetamol and NSAIDs), topical local anesthetics, and a structured physiotherapy program. We conclude that the limited number of NP cases reported in the literature may reflect that NP is an underrecognized medical condition. Diagnosis is frequently delayed, and symptoms may persist for months or even years. Early recognition of NP is essential to initiate appropriate targeted therapy.

Conclusion

Considering NP in the differential diagnosis of children presenting with back pain allows early diagnosis and treatment and prevents the chronification of pain. Early intervention also helps avoid restrictions in activities of daily living, improves quality of life, and prevents unnecessary healthcare costs. Furthermore, patients and their families should be informed about the potential risk of developing MEN 2A in the future.

Ethics Committee Approval: This is a single case report, and therefore ethics committee approval was not required in accordance with institutional policies.

Informed Consent: A written informed consent was obtained from the patient and her family.

Conflict of Interest: The author declare that there is no conflict of interest.

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