

## Nummular Headache: A Rare Headache Type in a Child Responding to Carbamazepine and Gabapentin

An 11-year-old girl presented with pressure type pain involving a coin-shaped area over vertex for the last 6 months. It was initially mild to moderate in intensity, but for 2 months before presenting to us, increased in severity to cause incapacitating pain. Although the pain was waxing–waning in nature, the pain never resolved completely. She could not identify any potential triggers. She also had hyperaesthesia and allodynia over the region. There was no photophobia, phonophobia, nausea, vomiting, episodes of sudden shooting or jabbing pain, autonomic symptoms, or any other associated features. Physical and systemic examination was essentially normal. Magnetic resonance imaging (MRI) of the brain and electroencephalography (EEG) was normal. She had been tried on multiple analgesic medications including NSAIDs (paracetamol, ibuprofen, naproxen, indomethacin [75 mg/day]) and also medications for migraine (flunarizine, topiramate, propranolol, amitriptyline) without any sustained, measurable benefit. With a clinical diagnosis of nummular headache (NH), she was started on carbamazepine. She had partial response over 4 weeks even after titrating to optimum dose (30 mg/kg/day). Subsequently, she was started on add-on gabapentin. After gradually hiking the dose to 600 mg/day, she responded favorably with almost complete resolution. The headache impact test-6 (HIT-6) score and visual analogue scale (VAS) score were 54 and 7 before starting gabapentin and reduced to 13 and 2 on follow-up at 4 weeks. Last follow-up was at 3 months to the treatment and she was headache free for the past two and a half months.

NH, previously also called coin-shaped headache is characterized by the continuous or intermittent headache of highly variable duration affecting a small, circumscribed, sharply contoured area of the scalp (fixed in size and shape, round or elliptical, 1–6 cm in diameter), usually affecting the parietal region.<sup>[1]</sup> Rarely, it may be multifocal; however, each area retains all the characteristic features of NH. Before establishing the

diagnosis the physician needs to ensure that the headache is not better accounted for by any other diagnosis in ICHD 3 and physical examination and appropriate investigations have been performed to exclude underlying structural and dermatologic lesions.<sup>[2]</sup> Usually, the pain is mild to moderate in intensity, but occasionally it is severe. Although the headache duration in up to 75% cases is longer than 3 months, sometimes it may last for seconds, minutes, hours, or days. Moreover, spontaneous or triggered exacerbations may occur sometimes, further incapacitating the person.<sup>[3]</sup> Many times the pain is also accompanied by paresthesia, dysaesthesia, hyperaesthesia, allodynia, or tenderness.<sup>[4]</sup> Various treatment options including NSAIDs, gabapentin, carbamazepine, phenytoin, topiramate, tricyclic antidepressants, local nerve block by anesthetic injection, microvascular decompression, dorsal root entry zone (DREZ) procedure, trigeminal rhizotomy, and trigeminal alcohol ablation have been described but no consensus guidelines have been formulated till now.<sup>[1–4]</sup> Although not proven, NH is mainly considered to be caused by peripheral or local rather than central mechanism. Pareja *et al.* have also attributed the pain to a probable epicranial source, conveyed by a few terminal branches of cutaneous nerves of the scalp.<sup>[5]</sup> Few affected patients also have other headaches like migraine and trigeminal neuralgia as comorbid conditions.<sup>[6]</sup> In adults often it is considered to be under-reported, approximated to constitute 1.25% of all patients in headache clinic with an estimated incidence of 6.4/100,000/year. However, to the best of our knowledge, this is the first case to be reported in an adolescent girl, who responded favorably to Gabapentine. Thus, even pediatricians need to be aware of this entity, which is a clinical diagnosis and can be treated successfully by medications for neuropathic pain.

### Declaration of patient consent

The authors certify that they have obtained all appropriate

patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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### Conflicts of interest

There are no conflicts of interest.

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