SUNCT, SUNA, and Trigeminal Neuralgia—Different Faces of the Same Disorder?

Short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing (SUNCT) and short-lasting unilateral neuralgiform headache with autonomic symptoms (SUNA) are rare but significantly disabling primary headache disorders.[1] They are characterized by intense recurrent pain that lasts for a brief duration and are often resistant to treatment.[2,3] The defining characteristic of SUNCT/SUNA is the presence of cranial autonomic symptoms, although the specific type and intensity of these symptoms may differ among individuals. As per the definition, individuals with SUNCT have both conjunctival injection and tearing as ipsilateral autonomic symptoms.[1] On the other hand, in SUNA, the autonomic symptoms may include either conjunctival injection or lacrimation, but not both simultaneously.[2] Apart from these symptoms, the presence of other cranial autonomic symptoms like nasal congestion, rhinorrhea, miosis, ptosis, eyelid edema, or forehead and facial sweating and/or flushing are similar in both SUNCT and SUNA.[4] The most important differential diagnosis of SUNCT/SUNA is trigeminal neuralgia.[3] All three of these disorders exhibit short-lasting neuralgiform pain pattern, frequent attacks per day, triggered attacks, and evidence of vascular compression of the trigeminal nerve.[3] This similarity has led researchers to propose that SUNCT/SUNA and trigeminal neuralgia might represent different points on the same continuum affecting the trigeminal nerve system.[3] Being rare disorders, there is a lack of data from multiple cohorts of SUNCT and SUNA to inform such understanding.

In this context, Prakash S, *et al.*[5] add to the literature by detailing the clinical profile and treatment outcomes of 29 patients with SUNCT and SUNA from India. Unlike patient cohorts in Western literature[1] but similar to a report from China,[6] these patients are younger (mean ages at onset of SUNA 36.8.5 ± 8.1 years and SUNCT 37.2 ± 8.4 years). SUNCT and SUNA exhibit a higher occurrence in females, with a female-to-male ratio of 1.7:1.[3] In particular, the female preponderance is more notable in patients with SUNA at a ratio of 2.4:1 compared to those with SUNCT at a ratio of 1.2:1.[3] The current series also documents a female preponderance (1.2:1), albeit less marked. The authors of this paper also demonstrate a common core phenotype between SUNCT and SUNA. These findings appear to affirm the reclassification of these two disorders under a single entity of short-lasting neuralgiform headache attacks (SUNHA) in the latest edition of the international classifications of headache disorders (ICHD-3).

Currently, treatment decisions are based on information from observational studies, case series, and individual case reports due to insufficient evidence from clinical trials. Drawing from the treatment of trigeminal neuralgia, lamotrigine, topiramate, gabapentin, and carbamazepine have been used in SUNCT/SUNA with variable success.[1,2] In the current series, the authors found that the response to pharmacotherapy was poor, with only two patients (one each on gabapentin and one on lamotrigine) reporting more than 90% improvement in symptoms. Further, they noted that though carbamazepine was the most prescribed drug, none of the patients experienced any meaningful relief. These experiences have been summarized into a step-wise management in their report that can be easily followed by treating clinicians.

This series also included two patients with neurovascular conflict in the SUNCT group. Indeed, there has been a renewed interest in investigating neurovascular compression of the trigeminal nerve as a potential contributing factor in patients with SUNCT/SUNA. Cohen *et al.*[7] identified three patients out of their cohort of 44 individuals with SUNCT who exhibited a vascular loop compressing the trigeminal nerve. Williams and Broadley[8] found that 15 of 17 (88%) patients with SUNCT/SUNA had an aberrant arterial loop in contact with or deforming the trigeminal nerve. The discovery of neurovascular contact with the trigeminal nerve has sparked interest in microvascular decompression as a potential therapeutic option for SUNCT/SUNA. Although considered a challenging procedure, microvascular decompression maybe a treatment option for select patients with SUNCT/SUNA who are unresponsive to other treatments. Research in these areas is ongoing, and continued exploration of therapeutic options is crucial to improving the management and outcomes for individuals suffering from SUNCT/SUNA.

Ragavendar Bhuvaneswaran, Rajeswari Aghoram
Department of Neurology, JIPMER, Puducherry, India

Address for correspondence: Dr. Rajeswari Aghoram, JIPMER, Puducherry-605 006, India.
E-mail: rajeswari.a@gmail.com

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Submitted: 17-Aug-2023 **Accepted:** 18-Aug-2023
Published: 26-Oct-2023

DOI: 10.4103/aian.aian_737_23