



Peripheral nerve blocks in the treatment of short-lasting unilateral neuralgiform headache with conjunctival injection and tearing (SUNCT) during pregnancy

Gebelikte konjunktival injeksiyon ve göz yaşarması ile birlikte kısa-sürelili unilateral nevralfjfrm başağrısı ataklarında (SUNCT) periferel sinir blokajı tedavisi

Osman Özgür YALIN,¹ Derya ULUDÜZ,² Aynur ÖZGE³

Summary

Short-lasting unilateral neuralgiform headache attacks with conjunctival injection and tearing (SUNCT) is a rare, primary headache syndrome and classified as a subtype of trigeminal autonomic cephalalgias. Although SUNCT is regarded to be a condition refractory to treatment, recently several antiepileptic drugs showed promising results in the treatment of SUNCT. There is lack of evidence about course at pregnancy and treatment options. In this report we present a 30 weeks healthy pregnant case of SUNCT who was treated successfully with infra- and supraorbital nerve blockage. Headache attacks diminished completely after injection and recurrence did not observed. Although lamotrigine seems relatively safe in pregnant patients with SUNCT attacks, peripheral nerve blocks seem to be an easy performed, safe and effective treatment option. This is the first SUNCT case in the literature treated successfully with infra- and supraorbital nerve blockage at pregnancy.

Keywords: Infraorbital; nerve blockage; SUNCT; supraorbital.

Özet

Konjunktival injeksiyon ve göz yaşarması ile birlikte kısa-sürelili unilateral nevralfjfrm başağrısı atakları (SUNCT), trigeminal otonomik başağrıları içerisinde sınıflandırılan nadir gözlenen bir primer başağrısı bozukluğudur. SUNCT genellikle tedaviye dirençli bir sendrom olarak kabul edilmesine rağmen son yıllarda antiepileptik ilaçlar ile anlamlı düzelme bildirilmektedir. Hastalığın gebelikteki seyri ve tedavisi ile ilgili literatürde bilgi yoktur. Bu çalışmada 30 haftalık gebelik sırasında SUNCT atağı yaşayan, infra- ve supraorbital sinir blokajı ile başarılı bir şekilde tedavi edilen bir olgu sunulmaktadır. Aslında gebelik döneminde lamotrijin kısmen güvenli olarak kullanılmaktadır, fakat periferel sinir blokajı uygulanması pratik, güvenli ve etkin bir alternatif tedavi seçeneğidir. Bu olgu literatürde gebelik döneminde infra- ve supraorbital sinir blokajı ile başarılı bir şekilde tedavi edilen ilk SUNCT hastasıdır.

Anahtar sözcükler: Infraorbital; sinir blokajı; SUNCT; supraorbital.

Introduction

The term of trigeminal autonomic cephalalgia (TAC) defines usually unilateral, brief, severe and high frequency headache attacks accompanying by ipsilateral parasympathetic autonomic features. Regarding to International Classification of Headache Disorders, 3rd Edition (ICHD-3),^[1] Short-Lasting Unilateral Neuralgiform Headache Attacks (SUNCT and SUNA) are characterized by shortest attacks of TACs (15–600

seconds). SUNCT diagnosis based to accompanying conjunctival injection and tearing although there is ongoing debate whether they are subtypes of same disorder. Classification also divides SUNCT as chronic or episodic forms to state frequency of attack for a month to year.^[1]

We report below a case of a woman with SUNCT, whose attacks remitted during the third trimester of a healthy pregnancy. There is no guideline for

¹Department of Neurology, İstanbul Training and Research Hospital, İstanbul, Turkey

²Department of Neurology, İstanbul University Cerrahpaşa Faculty of Medicine, İstanbul, Turkey

³Department Neurology, Mersin University Faculty of Medicine, Mersin, Turkey

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Correspondence (İletişim): Dr. Osman Özgür Yalın. İstanbul Eğitim ve Araştırma Hastanesi, Nöroloji Kliniği, İstanbul, Turkey.

Phone (Tel): +90 - 212 - 459 62 30 e-mail (e-posta): osmanozguryalin@yahoo.com

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the management of such a case, and management strategy is more complex for potential teratogenicity during pregnancy. This uncommon condition's course during pregnancy has been poorly explored and to best of our knowledge there are no reports evaluating therapeutic strategies at pregnancy.

Case Report

A 29-year-old woman with 30 weeks of pregnancy presented with a thirteen-year history of recurrent and seasonal -usually at autumn- headache attacks. She described strictly unilateral (always left-sided), stabbing pain episodes with duration of few seconds to 2 minutes, occurring on periorbital area, accompanied by prominent facial flushing, conjunctival injection, lacrimation and rhinorrhea. The pain usually occurring daily more than 10 times daily, for 15 days to 1 month clustering once a year. Previous attacks diagnosed as sinusitis and treated with anti bacterial agents and attacks were usually lasting for a month without treatment. Current SUNCT attack was continuing for one week. Headache attacks could be triggering by touching and washing face without refractory period. When the patient came to our attention, she was at 30 weeks of healthy pregnancy. This was her first pregnancy without complication, blood pressure, obstetric ultrasound and other examinations were normal. The neurologic examination was normal except mild allodynia at left periorbital area and touching was triggering attacks with prominent tearing and conjunctival injections. A diagnosis of SUNCT was made regarding to ICHD-3 beta criteria. A past-one year- Magnetic Resonance Imaging (MRI) had revealed normal findings. After final diagnosis clinicians explained medical treatment options to patient and relatives, and she didn't approved to use any drugs because of pregnancy and planning of breastfeeding. Then we discussed infraorbital and supraorbital nerve blockage treatment and obtained patient and obstetricians written consents. The supra- and infraorbital nerve blockage performed, the patient is in the supine position, head maintained in a neutral position. A 22- to 25 gauge 1.5 inch needle advanced around the foramen and lidocaine 10 mg + bupivacaine 5 mg + methylprednisolone 40 mg totally 4 milliliters for each nerve injected without complication. Patient came to control visits at first week, first month and 3 months of injection. Pain attacks diminished completely after first injection

and recurrence did not observed for one year. A healthy girl baby born uncomplicated and baby is still breastfeeding. The patients' written consent is also obtained about publication.

Discussion

SUNCT is traditionally regarded as a difficult to treat primary headache syndrome.^[2,3] Although exact pathophysiology of SUNCT is remaining unclear, recent studies revealed signs of activation at nucleus caudalis and posterior hypothalamus. Activation of peripheral trigeminovascular complex is proposed to result with activation of central pain pathways including posterior hypothalamus. Recent studies have reported satisfactory results with anti epileptic drugs, current first line agent is lamotrigine, and second line agents are reported as gabapentin and topiramate.^[4,5] For severe and medical treatment resistant patients there are pioneering studies on deep brain stimulation and micro vascular surgery.^[6-9] Great occipital nerve (GON) blockage efficacy studied by some authors with conflicting results. Supraorbital and infraorbital nerve blockage for treatment of SUNCT is a rarely studied issue. Some groups of authors reported patients whom had improved following GON injections.^[9,10] By Cohen et al. GON blockade is reported with satisfactory results in treatment of SUNCT.^[11] In a series of patients Pareja et al. reported SUNCT cases did not benefitted from GON, supraorbital and infraorbital blockade.^[3] McLauhchlan et al. reported a SUNCT case of effectively treated with supra and infraorbital nerve blockade.^[12] The conflict in studies could be resulted from different agents and dosages of blockade technique. Whether SUNCT is a rare disorder there are no controlled trial investigating medical treatment and invasive procedures efficacy. We are not aware of SUNCT with pregnancy such case report in the literature. To best of our knowledge this is also the first pregnant case treated successfully with infraorbital and supraorbital nerve block with combination of steroid, bupivacaine and lidocaine in literature. Although lamotrigine seems relatively safe in pregnancy, its safety in breastfeeding is less studied issue and as an alternative treatment nerve blockade is a safe, easy to perform option for treatment of SUNCT.

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