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INTRANASAL SPHENOPALATINE GANGLION BLOCK FOR INTRACTABLE HEADACHE – A CASE REPORT

Anaesthesiology

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ABSTRACT

49 year old male,daily wadge worker presented to pain OPD with severe headache attacks since 5years. Headache was so severe that he was unable to do his daily activities. The patient had visited multiple doctors for same reason. But no relief at all. Neurologist from our institution referred to Pain clinic for further management, since no obvious neurological reasons were seen. He describes his pain, as very severe excruciating, throbbing type of pain which starts behind his left eye and then migrates to the frontal and occipital area. VAS 1010.The pain was so severe that he could "feel pulsating something on the side of head."After 4-5 hrs, he feels completely relaxed and then yawning starts and he feels extremely sleepy. Most of the times post attack his right eyelid was got redden, swollen, and sometimes teary. The patient explains that these headaches have continued, and always seem to start in morning and evening (the time of this evaluation), approximately 5-6 times per week. When asked about aggravating factors he remember, oily food specially Samosa. Not associated with positional changes. In addition, the patient also have blurring of vision, photophobia, phonophobia sometimes excessive perspiration, nausea, vomiting post attack. And often he feel feels dizzy or confused post-ectal. No change in sleep patterns. In comorbidities, he has recently diagnosed hypertension which is well controlled by T.Telmisartan 40 mg od. So, we continue with the medical line of management followed by intervention in which we give the nasopalatine nerve block intranasally 2% Lignocaine and found instant relief of symptoms and gives brief satisfaction.

KEYWORDS

Headache, attacks, pulsating, excruciating, throbbing

INTRODUCTION

Patient with severe headache with sudden onset is alarming sign . The most likely diagnosis for such patients is cluster headache. Although its a diagnosis by exclusion. The pain is typically described as pulsating, sharp or sometimes pressure.[1] Cluster headaches are more common in males in second to 4th decade.[2] Such pain is mostly unilateral and commonly affecting periorbital or temporal area which lasts from minutes to hours and occurs with other autonomic symptoms. These symptoms co relates with the patient's reports and experience. Multiple episodes can occur in the same day. Although the circadian patterns of occurrence is not found as its characteristic. [1],[3],[2]. For this patient, the headache onset was recent, assuming it's a true cluster headache. Seasonal pattern may be observed with headaches occurring at similar times throughout the year more often in summer .[3] Watery, red, and swollen eyes, conjunctival congestion, forehead and facial swelling can be seen. These headaches are associated with the trigeminal nerve innervation, which causes ipsilateral autonomic reactions.[3] sometimes thunderclap headache reaches peak intensity in less than one minute along nausea, vomiting, altered cognition & photosensitivity.[4] A thunderclap headache with pain which occurs suddenly and peaks within a few minutes, reports of experiencing the worst headache of their life., any coexisting infection. Associated neurological findings, an aura lasting greater than 60 minutes.

Procedure

written informed consent taken. Patient received a single treatment of trans nasal Spheno palatine block(SGP) with 2cc of 2% lidocaine in right nostril was given (Figure1,2). Typically after the block, there is slight increase in temperature of face by 1 to 2^0 Celsius.[5] The patient is instructed to remain in the same position for 10 minutes.

DISCUSSION

More than 50% of population is affected by a headache disorder worldwide[1].Cluster headaches usually present suddenly with severe pain and immediate referral is needed. Diagnosis is by exclusion of any preexisting condition. So multidisciplinary approach for treating cluster headaches is needed. Pain is very severe debilitating in Cluster headache. [6]. It is associated with accompanying autonomic symptoms like periorbital oedema, forehead and facial sweating, ptosis, along with sense of restlessness or agitation. International Headache Society mentioned that it can occur many times a day and may last between mins to hours. Multiple episodes of cluster headache can occurs which can lasts from 1 week to 1 year, with total pain free periods in between [7]. Approximately 10–15% of patients suffering from cluster headache suffer from chronic cluster headache.

In this patient medical management was followed by intervention with SGP block was done.Patient had relief from symptoms after 15min and VAS score was 3/10 afer an hour.The pain generator for cluster headache is from postganglionic parasympathetic fibres ,from the SPG, which innervate the cerebral and meningeal blood vessels [8,9]. are activated and release neuropeptides that cause Vaso dilation. Trigeminal nociceptor fibres activation in the meninges and is perceived as referred pain from the head by the sensory cortex [10]. Neurogenic inflammation and the release of neuropeptides related to the activation of the trigeminal -vascular system and the cranial parasympathetic nervous system was first shown in humans in patients with cluster headaches [11] It has been a therapeutic target for over 100 years, to treat primary headache disorders [12]. Since Sluder first described the application of cocaine or alcohol to the SPG for the treatment of headaches, the SPG is been targeted for the treatment of headaches involving SPG in the trigeminal-autonomic pain reflex associated with cluster headache [13].

There are studied done in past where Local application of anaesthetic agents has been attempted to control the pain of cluster attacks[14]. In a another study intranasal application of cocaine and lidocaine compared with intranasal saline where complete cessation of pain was achieved in all patients in intervention group[15]. Local anaesthetics and steroids were applied locally over 2–4/ weekly sessions in 20 chronic cluster patients and 55% of patients achieved subsidence of symptoms or partial benefit [16].

Although some nasal preparations have significant adverse effects or are not well absorbed. So they do not work consistently but topical nasal preparations increase therapeutic options and have faster response times than oral formulations and injectable preparations[17].

Other interventions which also can give benefits and can tried in more resistant cases include ganglionectomy, percutaneous alcohol injection, lidocaine & corticosteroid application, cryosurgery, radiofrequency (RF) lesioning and more recently, neurostimulation[18].

Figure 1

Figure 2

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