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Sluder's neuralgia- A sequalae of nasogastric tube feeding

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Abstract

Management of nutritional needs is of paramount importance in cancer patients and nasogastric feeding is the most common method. Nasal cavity being a richly innervated region, is also a hallway for the exposure of the same to external environment. Any trauma or pressure to these nerve endings result in unilateral headache mimicking Sluder's neuralgia. Nasogastric tube may irritate the nasal mucosa and exert pressure on the nasal turbinates. We believe that the persistent headache in patients with NG tube is distinctly significant that it interferes with the physical comfort of patient. It also influences the sleep patterns, thereby causing repercussions in the emotional well-being. Head and neck oncologists being the primary clinicians, it is imperative to consider the Sluder's neuralgia in patients with nasogastric tube feeding. This mandates a prospective study to describe the clinical features and the treatment of 'NGT neuralgia'.

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Management of nutritional needs is of paramount importance in cancer patients. Albeit the availability of methods like PEG feeds, feeding jejunostomy and parenteral nutrition, feeds via nasogastric tube is the most common mode of nutrition in patients with head and neck malignancies[1]. Nasogastric feeding may irritate the nasal mucosa and exert pressure on the nasal turbinates. This can potentially cause unilateral headache, which is known to simulate the Sluder's neuralgia.

Nasal cavity being a richly innervated region, is also a hallway for the exposure of the same to external environment. Nerves supplying the nasal cavity are sensitive to external factors because of nociceptive receptors they bear. General sensory innervation is predominantly contributed by the branches of Trigeminal nerve via Nasociliary nerve (V1) and nasopalatine nerve(V2). The anterior ethmoidal nerve which is a continuation of nasociliary nerve, runs along the cribriform plate before passing through a slit, lateral to the crista galli to enter the nasal cavity. Medial and lateral branches of the nerve innervate the mucosa of the nasal septum and lateral nasal wall, respectively[2].Any trauma or pressure to these nerve endings result in unilateral headache mimicking Sluder's neuralgia.

Sluder (1901) described the neurogenic condition causing headache due to contact points between different structures within the nasal cavity. In 1934, McAuliffe et al. stimulated the lower, middle and upper turbinates mechanically with a probe or by a faradic current and reported that this process produced referred pain with a specific distribution depending on the area stimulated[3].Williams (1954) advocated removal of middle turbinate in the treatment of what he described as 'nasal contact headache'[4]. Further to this, Stammberger and Wolf proposed that neuropeptides, especially substance P, are involved in the mediation of facial pain owing to mucosal contactpoints[5].

Sluder's neuralgia exhibits symptoms of unilateral headache due to injury or inflammation to the sphenopalatine ganglion or its branches[3]. Often, Sluder's neuralgia is confused with the diagnosis of Vidian neuralgia

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and anterior ethmoidal nerve syndrome. A common triggering factor for the above mentioned spectrum of neuralgia is injury, constant pressure or chemical irritation to nasal turbinates. Presence of septal spur or deviated nasal septum abutting on the middle turbinate are the most common predisposing factors. Surgical removal or correction of the predisposing factor will relieve the discomfort. We have noticed that the presence of nasogastric tube (NGT) has similar effect and its removal has abated the unilateral headache caused by nasogastric tube (Figure 1). Hence this condition is popularly recognised in our institute as '*NGT neuralgia'* .

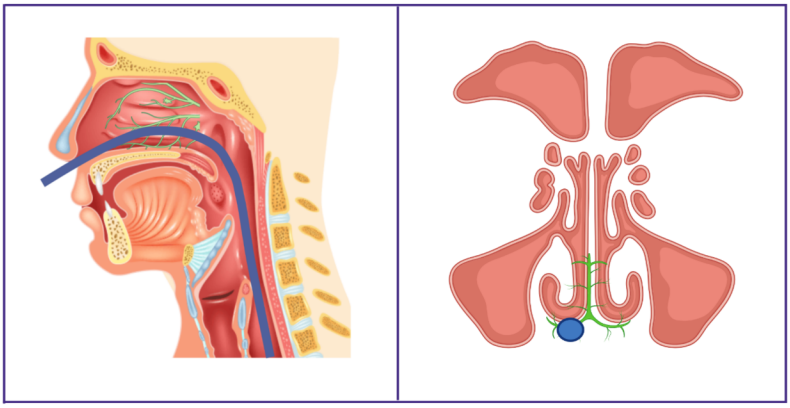

Figure 1- Nasogastric tube impingement on nasal turbinates

We believe that the persistent headache in patients with NG tube is distinctly significant that it interferes with the physical comfort of patient. It also influences the sleep patterns, thereby causing repercussions in the emotional well-being. Patients usually complain of unilateral headache in the post-operative period, corresponding to the side of nasogastric tube. The headache as described by the patients is constant, persistent, unilateral and sleep disrupting. The Pain is not associated with any sensory loss, with no observed changes in the laboratory or imaging studies. Notably, the pain typically subsides upon the removal of nasogastric tube. Head and neck oncologists being the primary clinicians, it is imperative to consider the Sluder's neuralgia in patients with nasogastric tube feeding. This mandates a prospective study to describe the clinical features and the treatment of NGT neuralgia.

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