

## Case Report

# An unusual Cause of Persistent Frontal Headache in a 9-Year-Old Boy

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## Abstract

Headache is a common clinical experience of the patients and is found in all age groups. Intranasal mucosal contact with the absence of inflammation in the nasal cavity and paranasal sinuses may cause a secondary headache which is called a rhinogenic contact point headache (RCPH). RCPH is currently a topic of interest among clinicians and is accepted as a cause of headaches by the International Headache Society Classification. The diagnostic nasal endoscopy showed an S-shaped deviated nasal septum with intranasal mucosal contact in both nostrils. The headache of the child was disappeared after performing septoplasty and excision of the bilateral mucosal contact points. These anatomical variations in the nasal cavity in the pediatric age with bifrontal headache is a very rare clinical entity. Hence, clinicians and pediatricians should keep in mind RCPH during the evaluation of headaches in a pediatric patient. In this case report, a 9-year-old boy presented with a persistent bifrontal headache due to mucosal contact points in the nasal cavity.

**Keywords:** Endoscopic excision, frontal headache, pediatric patient, rhinogenic contact point headache

## INTRODUCTION

Headache is a common clinical symptom presented by patients in routine clinical practice. Anatomical variation in the nasal cavity may cause headaches due to contact with the opposing mucosal layer.<sup>[1]</sup> The pressure of the two opposing mucosal linings in the nasal cavity without the presence of inflammation can cause headache and facial pain, which is described as rhinogenic contact point headache (RCPH). RCPH is a new type of headache in the international classification of headache disorders, supported by limited evidence. Intranasal contact points are found in approximately 4% of the noses.<sup>[2]</sup> RCPH is often misdiagnosed and even not suspected during the primary evaluation of the headache patient. Many times, the RCPH in children is misdiagnosed and even not suspected during primary evaluation. The anatomical variations in the nasal cavity such as deviated nasal septum (DNS), spur, concha bullosa, hypertrophied inferior turbinate, medialized middle turbinate, and septal bullosa may cause headache due to the pressure on the nasal mucosa in the absence of inflammation or mass lesions.<sup>[2]</sup> Here, we are presenting a case of a pediatric patient with chronic and persistent bifrontal headache where nasal endoscopy revealed bilateral intranasal mucosal contact

points. The headache disappeared after the endoscopic excision of the mucosal contact points.

## CASE REPORT

A 9-year-old boy attended the outpatient department of otorhinolaryngology with complaints of persistent bifrontal headache for 4 months. He had no history of nasal discharge, nasal bleeding, or postnasal discharge except bilateral mild nasal obstruction. The headache was on the bilateral frontal area, persistent in nature, and not aggravated by sound or light. He had no evidence of nausea, increased salivation, or lacrimation. He was properly examined by a pediatric neurologist to an ophthalmologist to rule out central or ophthalmological causes of headache and found no associated causes. He was initially treated with nonsteroidal

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of the etiological factors. RCPH is an important etiology for secondary headache which can be managed with surgical or medical treatment. Although topical nasal steroids relieve the RCPH, long-term improvement needs surgical interventions. Surgical resection of the mucosal contact point provides a more effective outcome in patients with RCPH. The topical nasal steroid improves the nasal patency on a short-term basis.<sup>[15]</sup> In case DNS or septal spur with headache is usually relieved by performing the septoplasty. The intranasal mucosal contact point is easily treated surgically by an endoscopic approach.

## CONCLUSION

In clinical practice, the RCPH is often missed during the evaluation of the headache in the pediatric age group. DNS or septal spur are common anatomical variations in the nasal cavity for causing RCPH. Other anatomical variations in the nasal cavities are the middle turbinate concha bullosa and enlarged bulla ethmoidalis. The clinicians and pediatricians should keep in mind RCPH during the diagnosis and treatment of headaches in pediatric patients. RCPH can be treated with medical or surgical treatment. Although topical nasal steroid relieves RCPH, long-term improvement is doubtful. Endoscopic surgical excision of the contact points in the nasal cavity is preferred as a treatment modality for giving long-term outcomes.

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## Conflicts of interest

There are no conflicts of interest.

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