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**Literature search results**

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**Search details**

Adult patients with facial pain not caused by rhinosinusitis, but instead due to the presence of nasal contact points. Does the pain disappear after endoscopic surgery for the removal of the contact points? Are other treatments effective?

**Resources searched**

NHS Evidence; Cochrane Library; EMBASE; MEDLINE; Google Scholar

**Database search terms**: “facial pain”; FACIAL PAIN; “trigeminal neuralgia”; TRIGEMINAL NEURALGIA; douloureux; rhinosinusitis; exp SUNUSITIS; exp RHINITIS; “nasal contact point*”; “contact point*”; nose; nasal; NOSE; nasal adj3 “contact point*”; rhinologic adj3 headache; “middle turbinate”; surg*; endoscop*

**Google search string**: (“facial pain” OR “rhinologic headache” OR “trigeminal neuralgia”) (“contact point*” (nose OR nasal) “middle turbinate”)

**Summary**

There is quite a lot of research on this subject. In terms of your specific outcome on the effectiveness of endoscopic surgery for the relief of facial pain caused by nasal contact points, please refer to studies 1, 5, 6, 10, 18, 23, 26, 27, 28, 30, 31, 32, 36, 37, 38, 39, 40, 41, 42, 44, 47, 49, 53, 54, 57, 58, 63 and 65.

**Guidelines**

None found

**Evidence-based reviews**

None found
Published research

1. The outcomes for nasal contact point surgeries in patients with unsatisfactory response to chronic daily headache medications.

Author(s): Abu-Samra M, Gawad OA, Agha M

Citation: European Archives of Oto-Rhino-Laryngology, September 2011, vol./is. 268/9(1299-304), 0937-4477;1434-4726 (2011 Sep)

Publication Date: September 2011

Abstract: The nasal contact point may act as a trigger point or peripheral enhancer in patients with chronic daily headaches. A total of 42 patients had unsatisfactory response to medical treatment for chronic daily headache with radiologic evidence of nasal contact point. Of them, 12 (28.5%) patients were positive for the local anesthetic test. Those patients were operated upon to separate this contact by either septoplasties or submucous resections with or without partial turbinectomies. The mean headache frequency was reduced from 22 to 7 days/month. The mean headache severity was reduced from 5.6 to 2.4. Eight (19%) patients became completely free from headache and its medications, six (75%) of them were positive for local anesthetic test. The patients were satisfied with postoperative monotherapy, or headache severity and frequency could be tolerated without medications in 26 (62%) patients. There was no improvement in seven (16.6%) patients and only one patient (2%) became worse. The overall satisfaction was 83 and 81% for positive and negative anesthetic tests, respectively. The average monthly medication cost was reduced from $85 to 32. Nasal contact point surgery for chronic daily headache patients can satisfy them compared to previously unsatisfactory medications. Nasal contact point may contribute to potentiating or triggering chronic daily headache.

Source: MEDLINE

2. Nose and headache: what have we learned? Naso e cefalee: cosa abbiamo imparato.

Author(s): Pipolo C, Portaleone S, Felisati G

Citation: Neurological Sciences, May 2011, vol./is. 32 Suppl 1/(S131-3), 1590-1874;1590-3478 (2011 May)

Publication Date: May 2011

Abstract: Sinonasal involvement in secondary headache has long been interpreted as sinusitis and overestimation has been a problem in the past. In the last 20 years, the innovative interpretation of contact points between the lateral nasal wall and the septum as triggering cause of facial pain via the trigeminovascular system has gained importance in nasal secondary headaches. Also in this case, the prevalence and relevance has been misinterpreted in the beginning, undermining the success rate of pain improvement after surgical removal of these contact points. Therefore, studies have started to concentrate on the need of suitable preoperative evaluation to define the ideal, responsive candidate for surgical management of this form of headache. This article analyzes the outcome of these studies and tries to highlight the need for long-term follow-up to finally determine the relevance of surgical treatment for this particular headache form.

Source: MEDLINE

3. Long term results of transseptal suture of the middle turbinate during sinus surgery [German] Langzeitergebnisse der transseptalen Naht der mittleren Nasenmuscheln bei Siebbeinoperationen
Long Term Results of Transseptal Suture of the Middle Turbinate during Sinus Surgery

Background: Synechia formation between the middle turbinate (MT) and the lateral nasal wall is a common postoperative complication in endoscopic sinus surgery (ESS) often resulting in revision surgery. To keep the middle meatus open several procedures were described in order to medialise the MT. Long term results of these techniques are missing. The purpose of the study was to evaluate the long term results of fixing the heads of the MT to the septum by a resorbable septal-turbinate-suture (STS). Material and methods: 17 patients were included in the retrospective study. All patients underwent ESS with STS because of chronic rhinosinusitis with (8) and without polyps (9). The median follow-up was 81 months (range, 36-105 months). In a total 34 nasal cavities were postoperatively examined by endoscopy. Additionally, rhinomanometry and olfaction test were performed. Results: The MT was found in a central position in between septum and lateral wall in 10 nasal cavities (30%), in a more medial position in 24 (70%) and none in a lateral position. Only 2 patients presented unilateral synechia to the lateral wall and one unilateral to the septum. Conclusions: Synechia of the MT to the lateral nasal wall in ESS can be effectively avoided by a STS. The long term results showed that STS maintains the MT in a medial position with a free middle meatus without impairing the olfactory function.

Source: EMBASE

4. Rhinologic evaluation in patients with primary headache

Objectives: In subjects with primary headaches, rhinologic pathologic condition may be associated with treatment refractoriness. In some cases, surgical correction of intranasal pathologic condition may decrease medication use. We aimed to evaluate the benefits of a rhinologic perspective in primary headache subjects by using neurologic management. Methods: Subjects with primary headache were examined by a neurologist and otolaryngologist. Initially, neurologic assessment was made, and medication was started. Migraine symptoms and pain severity were recorded using the Migraine Disability Assessment Scale and a 0 to 10 visual analog scale (VAS). Subject's pain severity of tension type headache was evaluated by VAS. Direct otorhinolaryngologic history of all primary headache subjects was taken, and they all underwent physical examination, rigid nasal endoscopy, sinus computed tomography, and mucosal contact point test. All examination and radiologic findings were noted. Subjects were separated into groups after 1-month medical neurologic management. Results: One hundred nine subjects were enrolled. Ninety-nine subjects completed follow-up. Seventy-eight percent of the subjects were women. The mean age was 33.6 years (range, 18-63 y). Twenty-six subjects had no significant intranasal pathologic condition (group 1). Twenty subjects had an intranasal pathologic condition but responded to the neurologic treatment (group 2). Fifty-three subjects had an intranasal pathologic condition, and the neurologic treatment failed for these 53 subjects. Surgical intervention was planned for these 53 subjects (group 3). Thirty-eight subjects accepted the operation (group 3a), and 15 subjects refused the surgical intervention (group 3b). All subject's Migraine Disability Assessment Scale and VAS scores were compared. A total of 73 subjects had rhinologic abnormalities. Groups 1 and 2 benefited from the neurologic treatment, but headache severity of group 3a reduced after rhinologic surgery. Group 3b who rejected surgical intervention did not respond to the
neurologic treatment. Conclusions: This study describes a series of subjects presenting with various primary headaches who also have underlying rhinologic abnormalities. Surgical treatment of the underlying rhinologic pathologic abnormalities had a beneficial effect on headache. Copyright 2010 by Mutaz B. Habal, MD.

**Source:** EMBASE

5. **Nasal mucosal contact points with facial pain and/or headache: lidocaine can predict the result of localized endoscopic resection.**

**Author(s):** Mokbel KM, Abd Elfattah AM, Kamal el-S

**Citation:** European Archives of Oto-Rhino-Laryngology, October 2010, vol./is. 267/10(1569-72), 0937-4477;1434-4726 (2010 Oct)

**Publication Date:** October 2010

**Abstract:** The objective of the study was conducted to evaluate the effectiveness of nasal endoscopy for both diagnosis and localized excision of intranasal contact areas that cause headache and/or facial pain as well as to evaluate the use of lidocaine test for diagnosis of such cases and predicting the result of surgery. This study included 120 patients aged between 18 and 45 years, with an average period of headache and/or facial pain of 2.5 years. Patients were classified into two groups according to lidocaine test. Group A that was lidocaine positive and group B which was negative. Excision of contact points was done, under endoscopic guidance, from the septum as well as the lateral nasal wall. 98.75% of patients in group A got benefit from surgery as most cases were cured from headache and facial pain. In group B, 40% got benefit with most patients had unchanged symptoms. In conclusion, endoscopic surgery gives a more precise complete excision of limited areas without time wasting or morbidity. Lidocaine test can be used as a test to aid in diagnosis and to predict the result of surgery where there were high cure rate within the lidocaine-positive group.

**Source:** MEDLINE

6. **Surgery for mucosal contact-point headache**

**Author(s):** Bae W.Y., Cain W.S., Lee J.H., Ahn T.J.

**Citation:** Chemical Senses, September 2010, vol./is. 35/7(A92-A93), 0379-864X (September 2010)

**Publication Date:** September 2010

**Abstract:** Headache is a common complaint in many environments. Not infrequently sufferers attribute the cause to inhalation of chemicals. There exists weak rhinological evidence for chemically induced headaches except from strong exposures. One can therefore look into cases where exposure might exacerbate an existing condition. Headaches attributable to mucosal contact point provide a possible example. Such a headache results from contact between the nasal septum and lateral nasal wall, resulting in trigeminally mediated pain. Distribution of the pain varies. We investigated the location of the headache and also assessed the benefits of surgical correction in patients by use of endoscopic or radiographic evidence. This prospective study included patients who met the following criteria: 1) History of chronic headache, 2) Lack of acute or chronic inflammation, 3) Presence of contact point by nasal endoscopy or CT scan, and 4) Relief after application of topical anesthesia to the contact point. Severity of headache was assessed pre- and post-operatively using a visual analogue scale. Location, duration, and frequency of headache were also assessed using a questionnaire. Headaches occurred in the frontal, temporal, and glabellar area. Those patients whose headache was believed to result from intranasal contact point underwent surgical management. According to the pain questionnaire given pre- and post-operatively, severity, duration, and frequency of headache improved significantly. Contact point headache merits consideration in patients
without other obvious causes of headache, including those patients who claim a chemical cause. Significant relief of headache can be obtained by surgery that eliminates the point of contact.

Source: EMBASE

Full Text:
Available in fulltext at Highwire Press

7. A case of an uncommon anatomic variation of the middle turbinate associated with headache [Italian] Infrequente variazione anatomica del turbinato medio associata a cefalea

Author(s): Peric A., Baletic N., Sotirovic J.

Citation: Acta Otorhinolaryngologica Italica, June 2010, vol./is. 30/3(156-159), 0392-100X;1827-675X (June 2010)

Publication Date: June 2010

Abstract: Headache due to the pressure of nasal mucosa in the absence of inflammation of the nose and paranasal sinuses is a clinical entity that has gained wide acceptance. Concha bullosa is the most commonly observed anatomical variation of the lateral nasal wall. The case is presented of a 31-year-old female with a history of intermittent frontal headache and bilateral nasal obstruction in whom we found the concha bullosa containing another, smaller concha bullosa inside. This is the first report of a case in which both outer and inner concha bullosa were septated (with two air cells inside). After resecting the lateral portion of outer concha bullosa and removing the inner concha bullosa, the patient reported no further headaches. The differential diagnosis of the variations of the middle turbinate and the relationships between the anatomic variations and pathophysiology of contact point headaches are discussed herewith.

Source: EMBASE

Full Text:
Available in fulltext at National Library of Medicine

8. Outcomes after middle turbinate resection: Revisiting a controversial topic

Author(s): Soler Z.M., Hwang P.H., Mace J., Smith T.L.

Citation: Laryngoscope, April 2010, vol./is. 120/4(832-837), 0023-852X (April 2010)

Publication Date: April 2010

Abstract: Objectives/Hypothesis: To evaluate differences in endoscopy exam, olfactory function, and quality-of-life (QOL) status after endoscopic sinus surgery (ESS) for patients with and without bilateral middle turbinate (BMT) resection. Study Design: Open, prospective, multi-institutional cohort. Methods: Subjects completing enrollment interviews, computed tomography (CT), and endoscopy exam were asked to provide pre- and postoperative responses to the Smell Identification Test (SIT), Rhinosinusitis Disability Index (RSDI), Chronic Sinusitis Survey (CSS), and the Medical Outcomes Study Short Form-36 Health Survey (SF-36). Bivariate and multivariate analyses were performed at the .05 alpha level. Results: Forty-seven subjects with BMT resection were compared to 195 subjects without BMT resection with a mean follow-up of 17.4 months postoperatively. Patients with BMT resection were more likely to have asthma (P = .001), aspirin intolerance (P = .022), nasal polyposis (P = .025), and prior sinus surgery (P = .002). Patients with BMT resection had significantly higher baseline disease burden measured by endoscopy, CT, and SIT scores (P < .001). No significant differences in improvement were found in
RSDI, CSS, or SF-36 scores between patients with BMT resection and those with BMT preservation (P > .05). Patients undergoing BMT resection were more likely to show improvements in mean endoscopy (-4.5 +/- 5.2 vs. -1.9 +/- 4.3; P = .005) and olfaction (5.3 +/- 10.8 vs. 1.3 +/- 7.6; P = .045) compared to those with BMT preservation. Conclusions: This investigation found no difference in QOL outcomes in patients with BMT preservation vs. resection. Patients undergoing BMT resection did, however, show greater improvements in endoscopy and SIT scores, which persisted after controlling for confounding factors. 2010 The American Laryngological, Rhinological and Otological Society, Inc.

Source: EMBASE

10. Endonasal endoscopic management of contact point headache and diagnostic criteria.

Author(s): Mohebbi A, Memari F, Mohebbi S

Citation: Headache, February 2010, vol./is. 50/2(242-8), 0017-8748;1526-4610 (2010 Feb)

Publication Date: February 2010

Abstract: BACKGROUND: Some types of headaches with sinonasal origin may be present in the absence of inflammation and infection. The contact points between the lateral nasal wall and the septum could be the cause of triggering and sustained pain via trigeminovascular system.OBJECTIVE: The aim of this study was to evaluate the feasibility and effectiveness of endoscopic surgery in the sinonasal region for treatment of headache with special attention paid to specific diagnostic methods and patient selection.METHODS: This was a prospective, non-randomized and semi-quasi experimental research study. Thirty-six patients with chronic headaches who had not previously responded to conventional treatments were evaluated by rhinoscopy and/or endoscopy, local anesthetic tests and computed tomography scans as diagnostic criteria. These patients were divided into 4 groups based on the diagnostic methods utilized. The intensity of headaches pre- and post-operatively were recorded by utilizing the visual analog scale scale and performing analysis with analysis of variance test comparison and Statistical Package for Social Sciences. Average follow-up was 30 months.RESULTS: Our overall success rate approximated 83% while the complete cure rate was 11%. Patients in group 4 achieved the best results. In this group all diagnostic criteria were positive. In addition, patient responses were statistically significant in groups with more than one positive criteria compared with group 1 who only had positive examination. The positive response of 14 migrainous patients diagnosed with migraine prior to treatment was 64%.CONCLUSION: Surgery in specific cases of headaches with more positive evidence of contact point could be successful, particularly if medical therapy has failed.

Source: MEDLINE

Full Text:

Available in fulltext at EBSCO Host

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11. [Analysis on correlation between mucosal contact point headache and nasal anatomy abnormality].

Author(s): Lou ZC, Lou FY, Wu Y

Citation: Zhonghua Er Bi Yan Hou Tou Jing Wai Ke Za Zhi = Chinese Journal of Otorhinolaryngology Head & Neck Surgery, January 2010, vol./is. 45(1(68-70), 1673-0860;1673-0860 (2010 Jan)

Publication Date: January 2010
12. [Changes in nasal airway resistance before and after intranasal contact point headaches].

Author(s): Lou Z

Citation: Lin Chuang Er Bi Yan Hou Tou Jing Wai Ke Za Zhi = Journal Of Clinical Otorhinolaryngology, Head, & Neck Surgery, October 2009, vol./is. 23/19(884-5), 1001-1781 (2009 Oct)

Publication Date: October 2009

Abstract: OBJECTIVE: To study the influence of endoscopic sinus surgery (ESS) on nasal airway resistance (NAR) of intranasal contact point headaches.METHOD: The NAR and nasal airflow sensation were measured with anterior rhinomanometry in 20 patients (40 sides) before and after the ESS.RESULT: A telephone follow-up six months after operation, 16 (85%) cases were cured, 3 (15%) were improved and 1 (5%) had no response and the effective rate was 95%. NAR decreased significantly after the operation. The change rates in NAR before and after the decongestion were (-0.34+/-0.23), (-0.75+/-0.21) and (-0.68+/-0.20), (-0.74+/-0.16) kPa x s/L, respectively, and there was a significant difference (P<0.05).CONCLUSION: The improvement of nasal functions by ESS is due to the alteration of the anatomic structure of the nasal cavity and the amelioration of mucosal edema. The rhinomanometry can be used as a useful clinical tool in determining nasal patency.

Source: MEDLINE


Author(s): Belli E, Rendine G, Mazzone N

Citation: Journal of Craniofacial Surgery, July 2009, vol./is. 20/4(1165-8), 1049-2275;1536-3732 (2009 Jul)

Publication Date: July 2009

Abstract: AIM: To assess the frequency and the endoscopic treatment of the middle turbinate pneumatization or concha bullosa.MATERIALS AND METHODS: Forty-nine patients (26 males and 23 females) with sinusitis and headache symptoms and axial and coronal computed tomographic scans of the paranasal sinuses and who had an endoscopic examination visit in the outpatient department between January 2005 and July 2007 were included in this study. Functional endoscopic sinus surgery was performed. Nasal tampons were removed 3 days after surgery, and endoscopic examination visits were performed 7, 15, 30, and 60 days after surgical treatment.RESULTS: All the patients presented complaints of chronic nasal obstruction. Eleven patients (5 males and 6 females; 22.4%) presented either a unilateral or a bilateral middle turbinate pneumatization. The surgeons recorded the surgery and each examination visit. In remote controls (12 mo at least), the patients showed a total remission of symptoms. There were no important complications.

Source: MEDLINE

14. Intranasal contact point headache: missing the "point" on brain MRI.

Author(s): Rozen TD

Citation: Neurology, March 2009, vol./is. 72/12(1107), 0028-3878;1526-632X (2009 Mar 24)
15. [Concha bullosa and the nasal middle meatus obstructive syndrome].

Author(s): Peric A, Sotirovic J, Baletic N, Kozomara R, Bijelic D, Rasic D

Citation: Vojnosanitetski Pregled, March 2008, vol./is. 65/3(255-8), 0042-8450;0042-8450 (2008 Mar)

Abstract: BACKGROUND: Concha bullosa (CB) is pneumatization of the middle turbinate and one of the most common anatomic variation of the sinonasal region. It is found in about 25% of the population. Middle meatus obstructive syndrome (MMOS) is, usually connected with CB. The main symptoms of this syndrome are headaches, impaired nasal breathing and hyposmia. Headache is the most common symptom and it may occur due to contact between a CB and other structures of the nasal cavity. CASE REPORT: We presented a case of 32 year-old-woman with headaches, located in the orbital and the left frontal region. The headaches were intermittent and corresponding to the nasal cycle. After neurologic and allergic examination, endoscopic nasal examination demonstrated a septal deviation to the right side and a large middle turbinate in the left side of the nasal cavity. Coronal computerized tomography (CT) of the paranasal sinuses demonstrated the septal deformation and pneumatization of the left middle turbinate. Diagnosis was confirmed by lidocaine test. In the functional endoscopic surgery (FESS), the lateral lamella of the anterior CB was removed. At the same time, the septoplasty was done. At the control examination, the patient was without symptoms. CONCLUSION: Although CB is the common anatomic variation of the nasal cavity, MMOS is rare. Headache (rhinogenic origin) is the most important symptom. Surgical treatment is the lateral resection of the CB in the FESS technique and the septoplasty.

16. Headache with autonomic features in a child: cluster headache or contact-point headache?.

Author(s): Mishra D, Choudhury KK, Gupta A

Citation: Headache, March 2008, vol./is. 48/3(473-5), 0017-8748;0017-8748 (2008 Mar)

Abstract: Headache and facial pain due to diseases of the nose and sinuses are not uncommon in children. However, nasal contact-point associated with headache is relatively uncommon and has unclear etiological significance. We herein report a child having headache with autonomic features and contact-point in the nose, and discuss the difficulties in diagnostic categorization.

Source: MEDLINE

Full Text:
17. A case of concha pyocele (concha bullosa mucocele) mimicking intranasal mass.

Author(s): Yuca K, Kiris M, Kiroglu AF, Bayram I, Cankaya H

Citation: B-ENT, 2008, vol./is. 4/1(25-7), 1781-782X;1781-782X (2008)

Publication Date: 2008

Abstract: Concha bullosa is the most common anatomic variant of the middle turbinate that usually remains asymptomatic. If the mucosal lining of pneumatized middle turbinate becomes inflamed, symptoms such as nasal obstruction, post-nasal discharge, snoring, headache, and fever occur. We report a case of concha pyocele (concha bullosa mucocele) in a 19-year-old girl. Computed tomography identified a right intranasal mass expanding towards the medial wall of the right maxillary sinus, nasal septum and right ethmoidal cells. The concha pyocele caused obstruction of the ostiomeatal complex, leading to right maxillary, ethmoid and sphenoid sinusitis. The patient was endoscopically treated under local anaesthesia. Histological examination of the mass revealed an active chronic inflammation caused by a foreign body.

Source: MEDLINE

18. Synechia formation after endoscopic sinus surgery and middle turbinate medialization with and without FloSeal.

Author(s): Shrime MG, Tabaee A, Hsu AK, Rickert S, Close LG

Citation: American Journal of Rhinology, March 2007, vol./is. 21/2(174-9), 1050-6586;1050-6586 (2007 Mar-Apr)

Publication Date: March 2007

Abstract: BACKGROUND: The aim of this study was to determine the incidence, outcomes, and risk factors for synechia formation after endoscopic sinus surgery (ESS) and middle turbinate medialization with and without FloSeal.METHODS: A retrospective review was performed of patients who underwent primary ESS with middle turbinate medialization, with or without the placement of FloSeal. Medialization was performed with the placement of an absorbable conchopexy suture and silastic splint. Operative variables and outcomes were analyzed to identify risk factors for synechia formation.RESULTS: One hundred thirty-five patients underwent medialization alone and 37 patients underwent medialization with placement of FloSeal. Overall, synechia formation was noted in 16 patients (9.3%). A statistically significant higher incidence of synechia formation was noted in patients who underwent middle turbinate medialization with the placement of FloSeal versus medialization alone (18.9% versus 6.7%). The incidences of intraoperative complications (6.2% versus 4.7%) and postoperative complications (6.2% versus 7%) were similar between patients with and without synechia, respectively. Patients experiencing synechia, however, underwent a statistically significant higher rate of revision procedures (25% versus 5.1%).CONCLUSION: Despite adequate prevention with middle turbinate medialization, synechia formation after ESS may result in higher rates of revision procedures. The placement of FloSeal in conjunction with middle turbinate medialization may result in a higher incidence of synechia formation.

Source: MEDLINE

Full Text:
19. Pneumatized superior turbinate as a cause of headache.

**Author(s):** Homsioglou E, Balatsouras DG, Alexopoulos G, Kaberos A, Katotomichelakis M, Danieleides V

**Citation:** Head & Face Medicine, 2007, vol./is. 3/(3), 1746-160X;1746-160X (2007)

**Publication Date:** 2007

**Abstract:** BACKGROUND: A pneumatized superior turbinate is a rare cause of headache. Nasal endoscopy alone does not provide us with adequate information for this inaccessible area of the superior nasal cavity. A coronal computed tomography (CT) must be obtained to confirm the diagnosis. CASE PRESENTATION: We present a 40-year-old female with migraine-type headache and nasal obstruction. Nasal endoscopy revealed a mild septal deviation, a right middle concha bullosa and a paradoxically curved middle turbinate on the left side. Coronal CT-scan showed also the presence of a superior concha bullosa on the left, which was in close contact with the nasal septum. The patient underwent septoplasty and bilateral endoscopic sinus surgery, including partial removal of both the pneumatized middle turbinates in conjunction with gentle lateralization and resection of the lower half of the left superior turbinate. Prompt relief from headache and nasal symptoms was obtained. CONCLUSION: Pneumatized superior concha causing migrainous headache is a rare finding. Endoscopic surgery may provide permanent relief of symptoms.

**Source:** MEDLINE

**Full Text:**

Available in fulltext at [BioMedCentral](https://www.biomedcentral.com)


20. Migraine and intranasal contact point headache: is there any connection?.

**Author(s):** Behin F, Lipton RB, Bigal M

**Citation:** Current Pain & Headache Reports, August 2006, vol./is. 10/4(312-5), 1531-3433;1534-3081 (2006 Aug)

**Publication Date:** August 2006

**Abstract:** It has been suggested that contact point can trigger headache in individuals with migraine. In this article, we review the anatomy of the sinonasal cavity. We then define contact points and discuss the pathophysiology of contact point headaches. We propose a theory to explain the relationship between migraines and contact points. We close by presenting our personal casuistic in the surgical treatment of patients with contact point and refractory headaches. In migraineurs with contact point, surgery may improve the headaches.

**Source:** MEDLINE

21. [Clinical observation of simple rhinologic headache due to rhinal structural abnormalities].

**Author(s):** Fang CX, Zhen SS

**Citation:** Di Yi Junyi Daxue Xuebao, December 2005, vol./is. 25/12(1579-80), 1000-2588;1000-2588 (2005 Dec)
Abstract: OBJECTIVE: To analyze the causes and evaluate the therapies for simple rhinologic headache resulting from rhinal structural abnormalities.METHOD: A retrospective analysis of 62 cases of simple rhinologic headache was conducted. All the patients were examined by high-resolution CT and nasal endoscopy to identify the anatomic structural abnormality in the nasal cavity. After establishment of the diagnosis, the nasal abnormalities were corrected by nasal endoscopic surgery.RESULT: Of all the cases, 46 were cured, 12 responded favorably to the treatment, and 4 failed to respond possibly due to multiple causes of the headache and misdiagnosis.CONCLUSION: High-resolution CT combined with nasal endoscopy may improve the diagnosis of simple rhinologic headache and nasal endoscopic surgery may serve as an effective modality for its treatment by correcting the nasal structural abnormalities.

Source: MEDLINE

22. Powered endoscopic septoplasty for septal deviation and isolated spurs.

Author(s): Raynor EM

Citation: Archives of Facial Plastic Surgery, November 2005, vol./is. 7/6(410-2), 1521-2491;1521-2491 (2005 Nov-Dec)

Abstract: Septoplasty is commonly performed for nasal airway obstruction or rhinologic headache due to contact irritation, often in conjunction with other nasal procedures, including cosmetic rhinoplasty and endoscopic sinus surgery. Traditionally, it is performed before these procedures via a "headlight" technique. This article describes the use of the microdebrider in 29 cases of endoscopic septoplasty. Many of the procedures were performed in conjunction with functional endoscopic sinus surgery; however, several were performed as an isolated procedure or with inferior turbino-plasty. The technique is described in detail. All 29 patients had significant improvement in their symptoms, and no patient developed a perforation or postoperative hematoma. Conversion to a traditional septoplasty was required in 1 case because of the severity of the deviation. Power-assisted endoscopic septoplasty is a useful adjunct in cases involving isolated septal spurs or moderate septal deviations. Patients with severe nasal obstruction due to caudal deflection of the septum off the nasal spine are better served with traditional headlight septoplasty.

Source: MEDLINE

23. Surgical management of contact point headaches.

Author(s): Behin F, Behin B, Behin D, Baredes S

Citation: Headache, March 2005, vol./is. 45/3(204-10), 0017-8748;0017-8748 (2005 Mar)

Abstract: INTRODUCTION: Contact point headaches are caused by contact between the nasal septum and the lateral nasal wall by a mechanism of referred pain involving the trigeminal nerve. Our goal was to investigate headaches caused by the contact between the septum and the superior turbinate or medial wall of the ethmoid sinuses and not the middle turbinate.MATERIALS AND METHODS: A retrospective chart review was performed on patients who underwent septoplasty and sinus surgery for headache. The total number of patients who opted for surgery was 23. Only 12 patients met the criteria of having a contact point between the septum and medial wall of the ethmoid sinus, or septum
and superior turbinate, which were demonstrated via CT scan of the sinuses. These patients underwent surgical intervention in order to relieve the contact points.

**RESULTS:** According to the same pain questionnaire given pre- and postoperatively, 83% no longer complained of headaches, while 8% had significant relief. Forty-one percent of our patients were previously diagnosed with migraines; 80% of these patients were successfully treated by surgery.

**DISCUSSIONS:** Contact point headaches and migraine without aura (MWOA) have similar symptoms (eg, photophobia, phonophobia, nausea and vomiting, pulsating nature). We believe contact point headaches should be considered in the patient with a diagnosis of MWOA headaches.

**Source:** MEDLINE

Full Text:

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24. Nasal septal mucosal contact points: associated symptoms and sinus CT scan scoring.

**Author(s):** Bieger-Farhan AK, Nichani J, Willatt DJ

**Citation:** Clinical Otolaryngology & Allied Sciences, April 2004, vol./is. 29/2(165-8), 0307-7772:0307-7772 (2004 Apr)

**Publication Date:** April 2004

**Abstract:** An association between nasal septal mucosal contact points and facial pain has often been quoted, but may be coincidental. CT scans of 100 consecutive rhinology patients were examined for contact points, and the sinuses were scored according to the Lund-Mackay system. The patients’ nasal symptoms were recorded using validated questions. Contact of the nasal septum with the lateral nasal structures was identified in 55 patients. The presence of contact was significantly (P < 0.01) associated with nasal blockage and reduction of smell, but there was no association with facial pain. The median Lund-Mackay score for scans with contact was significantly greater than the score for scans without contact. Whereas the results of the study support the hypothesis that nasal contact may impede ventilation and drainage of the paranasal sinuses, the study finds no evidence to support the concept that contact points cause facial pain or headaches.

**Source:** MEDLINE

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Available in print at [Lincoln County Hospital Professional Library](#)

Available in [fulltext at the ULHT Library and Knowledge Services’ eJournal collection](#); Note: Click Athens Log In to access this journal. Enter NHS Athens username and password if required.

25. Rhinitis and rhinologic headaches.

**Author(s):** Scarupa MD, Economides A, White MV, Kaliner MA

**Citation:** Allergy & Asthma Proceedings, March 2004, vol./is. 25/2(101-5), 1088-5412;1088-5412 (2004 Mar-Apr)

**Publication Date:** March 2004
Abstract: Rhinologic headache, a headache of nasal origin, generally has been attributed to past facial trauma causing nasal mucosa-septal contact points. Patients who have not knowingly experienced nasal trauma may have contact points caused by mucosal inflammation or anatomic abnormalities (septal spurs, septal deviation, and enlarged turbinates) and can develop rhinologic headaches. A population of 66 such patients was studied to classify the type of patient susceptible to such headaches and to examine the type of underlying inflammation or anatomic abnormality responsible for creating their mucosal contact points. Most patients were women with a mean age at the time of initial presentation of 40 years. VMR was the most frequent cause of nasal inflammation, either alone or in combination with allergic rhinitis. Generally, headache symptoms improved with treatment of the underlying nasal inflammation in the majority of patients.

Source: MEDLINE

Full Text: Available in fulltext at EBSCO Host


Author(s): Welge-Luessen A, Hauser R, Schmid N, Kappos L, Probst R

Citation: Laryngoscope, December 2003, vol./is. 113/12(2151-6), 0023-852X;0023-852X (2003 Dec)

Publication Date: December 2003

Abstract: OBJECTIVE: Some migraine and cluster headaches may be triggered by stimulation of intranasal contact points via the trigeminovascular system. Endonasal surgery is successful in some patients, but long-term outcomes have not been reported. STUDY DESIGN: Prospective. METHODS: This investigation included 20 patients with a mean 18-year history of refractory cluster or migraine headaches who were selected for surgery. All had endoscopically visible endonasal contact as well as a positive preoperative cocaine test result. Changes in pain severity and frequency and duration of headache attacks were statistically rated using a MANOVA. Follow-up averaged 112 months. RESULTS: Almost 10 years after surgery, six patients remained completely free of pain, seven had significant symptom improvement, and seven received no benefit from surgery (65% improvement). Two patients had been free of all symptoms for 7 and 8 years, respectively, before complaints returned. CONCLUSION: Our data suggest that some patients with refractory headaches and endonasal contact areas benefit from surgery, thereby supporting the existence of a connection between the two. Even though it is clear that surgery should be considered only if all other treatments have failed, a success rate of 65% over almost 10 years justifies evaluation of this option. Preoperative patient selection remains crucial and warrants further investigation.

Source: MEDLINE

Full Text: Available in fulltext at Ovid

27. Objective and subjective evaluation of endoscopic nasal surgery outcomes


Citation: American Journal of Rhinology, November 2003, vol./is. 17/6(327-333), 1050-6586 (Nov 2003)

Publication Date: November 2003
Abstract: Background: Chronic rhinosinusitis (CRS) symptoms include nasal obstruction, rhinorrhea, and facial pain associated with rhinosinusitis disability. When resistance to medical treatment is associated with endonasal anomalies, endoscopic nasal surgery (ENS) can be proposed. However, objective and subjective assessment criteria regarding the evaluation of ENS outcomes remain unclear. The aims of this study were to evaluate the correlation between the inflammation in the nasal mucosa, objective recordings of nasal airway resistance (NAR), subjective evaluation of symptom intensity, and the impact of ENS on patient-perceived rhinosinusitis disability. Methods: Sixty-one consecutive patients (35 men and 26 women; mean age, 37.5 years) suffering from CRS were monitored at 4 months and 2 years after ENS. All middle turbinate mucosa were analyzed for the density of nonspecific inflammatory cells. All patients scored their own subjective rhinosinusitis symptoms and complaints of rhinosinusitis disability. An active anterior rhinomanometry was performed. Results: A good correlation was observed between subjective and objective NAR (p < 0.001). We found a significant correlation between the density of inflammatory cells in the nasal mucosa, subjective nasal obstruction, and the rhinosinusitis disability score (p < 0.001). Recurrent CRS was seen only in subjects with moderate to severe inflammation of the middle turbinate mucosa sampled at the first surgical intervention. Subjective rhinosinusitis symptoms, objective NAR, and rhinosinusitis disability improved significantly after ENS. Conclusion: The degree of inflammation seems to be a good prognostic indicator regarding CRS recurrence. Long-term outcome after ENS for CRS showed significant improvement in subjective rhinosinusitis-specific symptoms, objective NAR, and rhinosinusitis disability.

Source: EMBASE

Full Text:
Available in fulltext at EBSCO Host


Author(s): Harley DH, Powitzky ES, Duncavage J

Citation: Otolaryngology - Head & Neck Surgery, September 2003, vol./is. 129/3(217-21), 0194-5998;0194-5998 (2003 Sep)

Publication Date: September 2003

Abstract: OBJECTIVE: This study was designed to explore the changes in patient-relevant clinical outcomes in a selected group undergoing surgery for nasal septal and turbinate abnormalities. Study design Seventy-nine consecutive patients with headache and correctable anatomic nasal obstruction were seen at the study institution from March 1998 to May 2000. These patients were evaluated for changes in patient-relevant clinical outcomes measures after surgical correction of their anatomic abnormalities. RESULTS: Seventy-one patients underwent surgical correction of nasal obstruction. More than half of these patients had contact points preoperatively. Statistically significant improvements were observed in the patient population with respect to 8 of the 10 clinical outcomes measures. Importantly, a decrease in the severity and frequency of headaches was noted after surgery, especially after the correction of contact points. CONCLUSION: The surgical correction of the septum and turbinates resulted in predictable improvement in headache and a majority of other important outcomes measures. Clinical significance Pain may improve after surgical correction of septal and turbinate abnormalities in a properly selected group.

Source: MEDLINE


Author(s): Giacomini PG, Alessandrini M, DePadova A
Facial pain syndrome secondary to sinonasal pathology is reported by the International Headache Society (IHS) classification (1988). It is underlined that a clear and proven nasal pathology with adequate painful stimuli must be present, i.e., acute sinusitis, vacuum sinus, or other unspecified pathologies. No clear role of septal abnormalities and turbinate hypertrophy has been attributed in the genesis of pain by the IHS classification.

One of the most difficult problems in dealing with patients with sinonasal headaches is the definition of the primary cause of the pain. In our experience possible guidelines are history, endoscopic evaluation, diagnostic blocks, and computed tomography. The data reported here is from a long-term follow-up study of facial pain in a group of 34 patients with facial pain and nasal obstruction due to septoturbinal contact that did not respond to medical therapy. Patients, free from sinus disease or other causes of headache, were treated by septoplasty/rhinoseptoplasty, and middle turbinate electrocauterization. Pre- and postoperative patency was assessed by endoscopic evaluation and nasal resistance was assessed by anterior rhinomanometry. Patients were interviewed regarding pre- and postoperative intensity of pain (subjective pain was evaluated using the 0-10 Visual Analogue Scale (VAS) and frequency of the facial pain. The follow-up period ranged from 12 to 47 months (mean: 26.7 +/- 8.5 months). In 25% of the cases the pain relapsed post-operatively (from two days to one year); but in only three patients (8%) the relapses were persistent. Two out of three, however, reported a decreased VAS score after surgery. These results seem to indicate septoplasty and turbinate decongestion to be a fairly good surgical option in treating facial pain due to septoturbinal contact resistant to conservative nasal therapy.

Source: MEDLINE

30. Role of endoscopic septoplasty in the treatment of atypical facial pain.

Author(s): Sindwani R, Wright ED

BACKGROUND: An endoscopically performed septoplasty enables correction of deformities under superior visualization with limited tissue trauma and offers marked teaching advantages. OBJECTIVE: To investigate the role of endoscopic septoplasty in the treatment of atypical facial pain caused by septal contact points. In addition to describing the technique, we also intended to outline favourable selection criteria for patients who may benefit from this procedure. METHOD: Thirteen patients with unilateral facial pain and septal contact points with lateral nasal wall structures who met our inclusion criteria were selected for endoscopic septoplasty. RESULTS: The follow-up period ranged from 7 to 20 months postoperatively. There were no intraoperative or postoperative complications. Seven of 13 (54%) patients were "completely cured" of their facial pain and another 5 patients (38.5%) were "significantly improved." Only one patient did not improve following surgery. CONCLUSIONS: Endoscopic septoplasty is a useful approach for dealing with some septal abnormalities and can be very effective in the treatment of atypical facial pain in the appropriately selected patient.

Source: MEDLINE

Full Text:
Available in fulltext at EBSCO Host

31. Sinugenic headache and nasal endoscopy
Author(s): Mahajan S.B., Kochhar L.K., Gupta A.K.

Citation: Medical Journal Armed Forces India, April 2003, vol./is. 59/2(121-124), 0377-1237 (Apr 2003)

Publication Date: April 2003

Abstract: This paper presents an evaluation and results of a study conducted on 62 patients out of 140 cases of chronic headache seen in ENT OPD. 32 patients were taken up for minimal endoscopic surgery. 23 cases (72%) have shown significant relief from headache over a period of 6 months or more. 11 cases showed anatomical/pathological variations at the ethmoidalis infundibulum, the commonest cause being enlarged bulla ethmoidalis followed by minimal polyps/polypoidal mucosa at the frontal recess area. Other causes are hyperplastic sinusitis, high posterior septal deviation, large middle turbinate, paradoxical middle turbinate and concha bullosa.

Source: EMBASE

32. Middle turbinate lateralization: a simple treatment for rhinologic headache.

Author(s): Kunachak S

Citation: Laryngoscope, May 2002, vol./is. 112/5(870-2), 0023-852X;0023-852X (2002 May)

Publication Date: May 2002

Abstract: OBJECTIVE: To introduce a minimally invasive method to eliminate the symptoms of contact-point rhinologic cephalgia. STUDY DESIGN: A prospective study of 55 patients with chronic nasal or glabellar pain and endoscopically proven nasal origin. METHODS: All 55 patients in whom endoscopic examination demonstrated a contact point between the middle turbinate and the nasal septum were treated by fracturing the middle turbinate lateralward using a small metal tongue depressor under 10% lidocaine HCL topical anesthesia. RESULTS: Of the treated cohort, 48 (87%) of the patients had complete clinical symptom resolution after one treatment and all had resolution after two treatments. Recurrence occurred in 1 patient. There were no short-term or long-term adverse sequelae. The results persisted at a mean follow-up time of 50 months (range, 6-84 mo). CONCLUSION: Middle turbinate lateralization is safe and effective in eliminating the symptoms of rhinologic cephalgia induced by contact point between the middle turbinate and nasal septum.

Source: MEDLINE

Full Text:

Available in fulltext at Ovid

33. Postoperative management of endoscopic sinus surgery

Author(s): Schlosser R.J., Kountakis S., Gross C.W.

Citation: Current Opinion in Otolaryngology and Head and Neck Surgery, 2002, vol./is. 10/1(36-39), 1068-9508 (2002)

Publication Date: 2002

Abstract: Functional endoscopic sinus surgery has revolutionized our understanding and treatment of chronic rhinosinusitis. Optimal long-term patient outcomes result from a combination of treatment issues. Initial intraoperative techniques and decisions concerning the management of the middle turbinate and the need for middle meatal spacers or stents.
Postoperative decisions include postsurgical cleaning schedules and treatment of synechiae or polyps that may contribute to unfavorable results. Finally, aggressive medical management of underlying inflammatory disease of the mucosa will permit rapid re-epithelialization and return of normal mucociliary function. This article reviews controversies surrounding these issues and provides the perspective of an experienced rhinology practice. 2002 Lippincott Williams & Wilkins, Inc.

Source: EMBASE

Full Text:

Available in fulltext at Ovid

34. Does stimulation of nasal mucosa cause referred pain to the face?

Author(s): Abu-Bakra M, Jones NS

Citation: Clinical Otolaryngology & Allied Sciences, October 2001, vol./is. 26/5(430-2), 0307-7772;0307-7772 (2001 Oct)

Publication Date: October 2001

Abstract: Ten healthy volunteers (five men and five women, mean age 30 years 3 months), with no nasal contact points, had pressure, adrenaline (1 : 1000), substance P (10 and 80 nmol/mL) and placebo topically applied to their nasal mucosa. Areas stimulated were the nasal floor, septum and lateral wall as well as the inferior and middle turbinates in both nasal cavities. The application of stimuli was randomized and single-blinded. A numerical score of the subjective severity of pain was used to assess outcome. Pressure caused variable local nasal discomfort limited by the duration of application and the site of pressure. Substance P caused variable nasal itching and sneezing. None of the stimuli caused referred pain to the face. The results question the role of mucosal contact points in facial pain.

Source: MEDLINE

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35. Nasal mucosal headache presenting as orofacial pain: a review of the literature and a case report.

Author(s): Pinto A, De Rossi SS, McQuone S, Sollecito TP

Citation: Oral Surgery Oral Medicine Oral Pathology Oral Radiology & Endodontics, August 2001, vol./is. 92/2(180-3), 1079-2104;1079-2104 (2001 Aug)

Publication Date: August 2001

Abstract: Headaches are a significant component of many facial pain syndromes. These facial pain/headache syndromes often have various etiologies, including neurologic, vascular, musculoskeletal, or combinations of vascular/musculoskeletal origins. Referred rhinologic headache, however, can be overlooked as a cause of facial pain in the dental literature. We report a case of nasal mucosal headache that presented as facial pain and include a review of the literature.
36. Prevalence of nasal mucosal contact points in patients with facial pain compared with patients without facial pain.

Author(s): Abu-Bakra M, Jones NS

Citation: Journal of Laryngology & Otology, August 2001, vol./is. 115/8(629-632), 0022-2151;0022-2151 (2001 Aug)

Publication Date: August 2001

Abstract: A cohort of 973 consecutive attendants at a rhinology clinic was studied prospectively and divided into patients without facial pain (n = 566, 58 per cent) and patients with facial pain (n = 407, 42 per cent). The prevalence of nasal mucosal contact points was the same in both groups, being four per cent in patients with nasal contact points without facial pain and four per cent in patients with facial pain. A contact point is defined as when contact remains after topical decongestion. Of the 18 patients with facial pain, nine had a spur contacting the lateral nasal wall and nine had a middle turbinate contacting the septum. These 18 patients were followed up for a mean of two years and two months. In the light of their treatment and response the following diagnoses were made: five had tension-type headache, six had midfacial segment pain, one had migraine, two had cluster headache and four had purulent nasal disease. Of the four with unilateral symptoms, two had a contact point on the contralateral side. Eleven of these 18 patients responded to medical treatment for tension-type headache or midfacial segment pain, migraine and cluster headache, three patients were better after surgery for coexisting purulent nasal disease and one patient had a spur removed surgically and remained better at 2 years follow-up, whereas three patients were no better after the same procedure. The results demonstrate that the prevalence of nasal contact points in patients with facial pain is the same as in those without pain. Surgery undertaken to remove mucosal contact points for facial pain is usually unnecessary as the aetiology of this facial pain appears to be a more central processes.

Source: MEDLINE

Full Text:

Available in print at Pilgrim Hospital Staff Library

37. Middle turbinate resection: issues and controversies.

Author(s): Giacchi RJ, Lebowitz RA, Jacobs JB

Citation: American Journal of Rhinology, May 2000, vol./is. 14/3(193-7), 1050-6586;1050-6586 (2000 May-Jun)

Publication Date: May 2000

Abstract: Diversity of opinion continues to exist among otolaryngologists regarding the potential benefits of preservation or resection of the middle turbinate during endoscopic
ethmoidectomy. Rhinologists in favor of middle turbinate preservation cite the potential loss of olfactory function as well as diminished humidification and filtration of inspired air following its resection. In addition, the middle turbinate remnant could lateralize, causing frontal recess obstruction and frontal sinusitis. In general, it is accepted that a diseased or flail middle turbinate should be resected during ethmoidectomy to create a marsupialized surgical bed. However, in the case of a structurally sound middle turbinate, indications for resection vary significantly. We are reporting on 100 primary endoscopic ethmoidectomies for chronic rhinosinusitis followed for at least 2 years. Of these 100 sides, 50 included conservative partial middle turbinectomy and 50 were performed with middle turbinate preservation. The postoperative clinical and endoscopic findings revealed no difference in the incidence of frontal sinusitis or frontal recess stenosis between groups. We compared additional data and present our technique of conservative middle turbinate resection, which preserves a portion of this structure as an important anatomic landmark.

**Source:** MEDLINE

38. Nasal surgery for contact point headaches.

**Author(s):** Tosun F, Gerek M, Ozkaptan Y

**Citation:** Headache, March 2000, vol./is. 40/3(237-40), 0017-8748;0017-8748 (2000 Mar)

**Publication Date:** March 2000

**Abstract:** Headache due to the pressure on nasal mucosa of anatomical variations, nasal polyps, or mucosal swelling in the absence of inflammation of the paranasal sinuses is a clinical entity that has gained wide acceptance. In this paper, the outcomes of surgical treatment in 30 patients whose headaches were believed to be the result of intranasal contact points are presented. Total relief of the headache and significant improvement were achieved in 43% and 47% of the patients, respectively, after endoscopic endonasal surgery. The intensity of the headache was the same as preoperatively in 10% of the patients. In the absence of any other identifiable etiological factors, intranasal mucosal contacts must be kept in mind as a cause of the headache.

**Source:** MEDLINE

**Full Text:**

Available in fulltext at [EBSCO Host](https://www.ebscohost.com)


**Author(s):** Pereira F.C., Sanchez A., Anselmo-Lima W.T.

**Citation:** Revista Brasileira de Otorrinolaringologia, 2000, vol./is. 66/4(349-352), 0034-7299 (2000)

**Publication Date:** 2000

**Abstract:** Introduction: Middle turbinate headache syndrome is mentioned as the compression of middle turbinate to the septum or to the lateral wall of nose due to nasal oedema or middle turbinate pneumatization. It is characterised by periorbital pain, generally unilateral and intermittent, associated to nasal obstruction. Purpose: Evaluate the symptoms of headache before and after partial middle turbinectomy, associated or not to septoplasty. Material and Method: Eleven patients were analysed, five men and six women, with mean age of 30 years (varying from 15 to 62 years). The main symptom was headache, generally periorbital (82% of cases); 90% had also nasal obstruction and 63%
had also posterior rhinorrea. All the patients were submitted to partial middle turbinectomy, from which seven were also submitted to septrplasty. Results: After 30 months in media (varying from 10 to 52 months) after surgery, 54% of patients had a great diminution of headache (above 80%), 27% had moderate diminution (50%), 9% had little diminution (less than 50%) and 9% had no diminution at all. Twenty eight percent of patients still had posterior rhinorrea and 50% of patients had great amelioration of nasal obstruction, whereas 50% of them had partial amelioration of it. Conclusion: It can be concluded that partial middle turbinectomy is a safe and efficient surgery to diminish headache, when well indicated.

Source: EMBASE
42. **Nonsurgical versus endoscopic sinonasal surgery for rhinogenic headache.**

**Author(s):** Ramadan HH

**Citation:** American Journal of Rhinology, November 1999, vol./is. 13/6(455-7), 1050-6586;1050-6586 (1999 Nov-Dec)

**Publication Date:** November 1999

**Abstract:** Headaches of sinonasal origin have been described lately. Terms such as middle turbinate syndrome have been used to describe this entity. The true incidence of this headache is unknown. A concha bullosa or a hypertrophied middle turbinate have been associated with these cases. Mucosal contact between the middle turbinate and the nasal septum or the lateral wall of the nose have been attributed as the cause of referred pain in the face. We present data on 23 individuals with refractory primary headache in the absence of any significant sinus symptoms. The duration of the symptoms of these individuals ranged between 4 and 13 years with a mean of 7.2 years. Fifteen patients agreed to undergo surgery, whereas eight refused surgery. After a mean of 23 months of follow-up, all those who did not have surgery continued to have pain that required excessive medications, whereas 60% of those who had surgery reported marked relief of their headaches. Those who had symptoms for less than 7 years had a greater chance of success (OR = 2). Sinonasal surgery seems to be helpful in alleviating primary headaches, especially in individuals whose duration of symptoms is less than 7 years.

**Source:** MEDLINE

43. **Partial resection of the middle turbinate at functional endoscopic sinus surgery**

**Author(s):** Banfield G.K., McCombe A.

**Citation:** Journal of the Royal Army Medical Corps, February 1999, vol./is. 145/1(18-19), 0035-8665 (Feb 1999)

**Publication Date:** February 1999

**Abstract:** The middle turbinate is often carefully preserved at Functional Endoscopic Sinus Surgery (FESS). However there is no clear understanding of its importance and its presence may prevent good access to the middle meatus to the detriment of the surgical result. In addition its bulk may cause symptoms of nasal obstruction and prevent paranasal sinus drainage. Adhesions and stenosis have been reported at the middle meatus following its preservation. We undertook a prospective study of 50 consecutive patients all of whom underwent resection of the anterior half of the middle turbinate at the time of Functional Endoscopic Sinus Surgery. The patients were asked to complete a symptom score sheet before and ten weeks after surgery. The parameters considered were nasal obstruction, nasal congestion, discharge, facial pain and headache. Non parametric analysis of the results indicated a significant improvement in all patient symptom scores and no postoperative complications were noted. We conclude that partial resection of the middle turbinate is a useful modification of accepted endoscopic sinus surgery techniques.

**Source:** EMBASE

44. **Functional endoscopic sinus surgical outcomes for contact point headaches.**

**Author(s):** Parsons DS, Batra PS

**Citation:** Laryngoscope, May 1998, vol./is. 108/5(696-702), 0023-852X;0023-852X (1998 May)
Abstract: Headaches secondary to sinonasal anatomic abnormalities continue to remain a difficult entity to diagnose and to manage. This retrospective study analyzed the outcome of care for 34 patients who presented with headaches as one of their primary sinonasal complaints and were subsequently found to have contact points between the nasal septum and one or more turbinates on nasal endoscopy and/or computed tomography scan. Following functional endoscopic sinus surgery to relieve the contact points, these patients were interviewed regarding preoperative and postoperative intensity and frequency of the headaches and the overall response of the chronic sinusitis and headaches to surgery, after a mean follow-up period of 13.9 months. After surgery, reduction in intensity and frequency of headaches was experienced in 91% and 85% of the patients, respectively. This investigation demonstrates that surgical management of contact point headaches can make a significant impact on the headache symptomatology in children and adults.

Source: MEDLINE

Full Text:

Available in fulltext at Ovid

45. Middle turbinate headache syndrome.

Author(s): Anselmo-Lima WT, de Oliveira JA, Speciali JG, Bordini C, dos Santos AC, Rocha KV, Pereira ES

Citation: Headache, February 1997, vol./is. 37/2(102-6), 0017-8748;0017-8748 (1997 Feb)

Publication Date: February 1997

Abstract: The middle turbinate and nasal septum are innervated by the anterior ethmoidal nerve, a branch of the ophthalmic division of the trigeminal nerve. As reported in the classical work of Wolff (1948), stimulation of these regions causes pain in the medial canthus of the supraorbital region. Periorbital pain due to middle turbinate compression against the septum or the lateral wall of the nose may be due to congestion of the nasal mucosa or to pneumatization of the middle turbinate (concha bullosa). The diagnosis is made by exclusion and requires a high index of suspicion, anterior rhinoscopy, computerized tomography (CT), and confirmation by the lidocaine test. We present five cases of middle turbinate headache syndrome, all with concha bullosa. Four were treated surgically by partial middle turbinectomy and septoplasty more than 1 year ago, with excellent results. One patient refused surgical treatment which was suggested after failure of medical treatment with antihistamines, decongestants, and a topical corticosteroid, and continues to be symptomatic. Despite the small number of cases studied, the authors concluded that the procedure used was effective for the resolution of headache.

Source: MEDLINE


Author(s): Welge-Lussen A, Hauser R, Probst R

Citation: Laryngo- Rhino- Otologie, July 1996, vol./is. 75/7(392-6), 0935-8943;0935-8943 (1996 Jul)

Publication Date: July 1996

Abstract: Migraine and cluster headache can both be triggered by sensitive intranasal areas.METHODS: Endoscopic nasal surgery was performed in 20
patients with chronic migraine without aura or cluster headaches that were refractory to other forms of treatment for a mean period of 18 years (range of 1-45 years). The selected patients showed clinical and radiographic evidence of contact between the middle turbinate and the nasal septum. All patients experienced immediate relief of pain following topical application of cocaine to the presumable triggering area. Five patients with cluster headache and 15 patients with migraine were treated.

RESULTS: All patients with cluster headache were free of symptoms after surgical intervention and for a mean follow-up period of three years. Six of the 15 patients with migraine were completely free of symptoms after a mean follow-up period of three years; five had improved more than 50% in the duration and frequency of their attacks. Treatment was unsuccessful in four patients.

CONCLUSION: This trial established a likely relationship between nasal trigger areas and cluster headache through the trigeminovascular system and a possible relationship to some type of migraine without aura.

Source: MEDLINE

47. The place of endonasal endoscopy in the relief of middle turbinate sinonasal headache syndrome.

Author(s): El-Slimy O

Citation: Rhinology, December 1995, vol./is. 33/4(244-5), 0300-0729;0300-0729 (1995 Dec)

Publication Date: December 1995

Abstract: Middle turbinate sinonasal headache syndrome is a rare but not uncommon treatable cause of headache. The true incidence of headache from this cause is unknown. Pneumatization (concha bullosa) or hypertrophy of the middle turbinate can result in it contacting the septum or the lateral nasal wall and may give headaches in the periorbital region. It may occur in the absence of inflammatory sinus disease. The clinical history, nasal endoscopic examination and, coronal CT-scan should point towards the diagnosis and a local anaesthetic challenge test should confirm the diagnosis. Treatment is by relieving the contact point by medical or surgical means. Twenty-one cases of middle turbinate sinonasal headache syndrome refractory to medical treatment are presented with emphasis on the results of endonasal endoscopic surgical treatment.

Source: MEDLINE

48. Endoscopic sinus surgery for chronic sinusitis in children

Author(s): Yu N., Yang J.

Citation: Zhonghua er bi yan hou ke za zhi, 1995, vol./is. 30/5(270-272), 0412-3948 (1995)

Publication Date: 1995

Abstract: Anatomical features show maxillary sinus to be most commonly involved during childhood chronic sinusitis. Fifty-one cases who failed to respond to medications and irrigation were selected to undergo the middle meatal antrostomy under endoscopy. The majority of them had maxillary sinusitis. 10 cases had middle turbinate edema and polyps. 6 had ethmoiditis. After operations, signs of headache eliminated in 20 cases, nasal obstruction in 43 cases and yellowish discharge in 37 cases. The operative results were satisfactory. It is demonstrated that endoscopic sinus surgery is an ideal therapy for the treatment of childhood chronic maxillary sinusitis at present.

Source: EMBASE

49. Rhinologic headaches.
From January 1, 1991, to June 30, 1992, 18 patients were identified as having rhinologic sources for their primary symptom of facial pain or headache. These 18 patients satisfied certain inclusion and exclusion criteria to identify the site of origin of the headaches or facial pains as coming from the nasal cavities or paranasal sinuses. The majority of these patients (12 patients) were determined to have a septal spur causing the facial pain or headache. Other identified causes included retention cysts (3 patients), mucosal contact points (2 patients), and a dehiscent infraorbital nerve (1 patient). Fifteen of these 18 patients (83%) were significantly improved or cured of their facial pain or headache after medical or surgical therapy. The 3 patients who had either a minimal improvement or no improvement in their facial pains or headaches included 1 patient with an area of mucosal contact between the middle turbinate and the bulla ethmoidalis and 2 patients with septal spurs. In summary, medical or surgical therapy can be beneficial in the treatment of patients with headaches or facial pains of rhinologic origin.

Source: MEDLINE

50. Intranasal Xylocaine: a prognostic aid for pre-operative assessment of facial pain of nasal origin

Author(s): Landrigan G.P., Kirkpatrick D.A.

Abstract: Many people with facial pain suggestive of sinus disease are ultimately proved, through extensive investigations, to have intranasal pathology without sinusitis. The middle turbinate in close proximity to other mucosal surfaces have been implicated as a possible cause of the rhinogenic pain. Surgical removal appears to provide relief in appropriately selected patient population. Pre-operative assessment to date has been mostly exclusional. Inference has been made to the efficacy of topical vasoconstrictive and combined vasoconstrictor-anesthetic agents as a diagnostic and prognostic aid for postoperative pain relief. Thirteen patients with middle turbinate hypertrophy, and symptoms suggestive of chronic rhinosinusitis were fully assessed clinically and radiographically. Significant sinus disease was ruled out. They were selected for middle turbinectomy with or without septoplasty. Topical Xylocaine was applied intranasally when patients were symptomatic. Postoperative follow-up suggests that the Xylocaine test may be a good prognostic aid for surgical outcome for craniofacial pain of apparent middle turbinate origin.

Source: EMBASE

51. Experiences in middle turbinectomy

Author(s): Morgenstein K.M., Krieger M.K.

Abstract: Rhinologists have long cautioned about removal of the middle turbinate, though exenteration of the ethmoid labyrinth including the middle turbinate has shown the structure can be sacrificed. The middle turbinate can be removed in the crowded nose often with septoplasty and partial inferior turbinectomy, to improve the nasal airway. A vasoactive
middle turbinate which engorges and compresses against an often deviated nasal septum gives rise to the ‘four finger headache’ patient for whom middle turbinectomy, often with septoplasty, is helpful. Point cocainization of the compressed site helps prognosticate the good candidate for surgical relief. Patients with purulent sinusitis have been excluded from the study. Results have been good to excellent with no long-term adverse sequelae. There has been no crusting, drying, or infection as a result of the authors’ middle turbinectomies. Careful patient selection is critical.

Source: EMBASE

52. Middle turbinate headache.

Author(s): Watkins AB

Citation: Medical Journal of Australia, February 1970, vol./is. 1/8(382-4), 0025-729X;0025-729X (1970 Feb 21)

Publication Date: February 1970

Source: MEDLINE
treatment of sinus headache
HL Levine, M Setzen, RK Cady, DW Dodick... - ... -Head and Neck Surgery, 2006 - Elsevier
... is, however, defined in the appendix under A11.5.1 mucosal contact point headache, as ... Table 3) and, additionally, concomitant clinical features such as facial pain, nasal congestion, and ... headache either accompanied by prominent autonomic symptoms in the nose or triggered ...

Cited by 22 - Related articles - All 8 versions

58. Directed functional endoscopic sinus surgery and headaches
BJ Ferguson - Archives of Otolaryngology - Head and Neck Surgery, 2000 - Am Med Assoc
... to such diagnostic interventions as topical lidocaine or decongestants, location of facial pain or headache ... the patients who will respond to directed endoscopic sinus surgery and nasal surgery from the ... Functional endoscopic sinus surgical outcomes for contact point headaches. ...

Cited by 3 - Related articles - BL Direct - All 2 versions

59. Sinus headaches: avoiding over-and-mis-diagnosis
NS Jones - Expert review of neurotherapeutics, 2009 - ingentaconnect.com
... Contact points The theories that implicate contact points within the nose as a cause of headache or facial pain ... points within the nasal cavity can cause referred pain, even though McAuliffe's studies did not describe contact point-induced headache or facial pain [28], ...

Cited by 5 - Related articles - All 6 versions

60. Chronic daily headache: When to suspect sinus disease
SM Houser... - Current pain and headache reports, 2008 - Springer
... However, in clinical practice, pressure-related facial pain that responds to decongestive medications ... Surgical intervention for contact point headaches or barosinusitis is typically reserved for patients ... claim to have “sinus headaches.” At times, however, the nose and sinuses do ...

Cited by 2 - Related articles - BL Direct - All 3 versions

61. Non-sinusitis-related rhinogenous headache: a ten-year experience
HH Huang, TJ Lee, CC Huang, PH Chang... - American journal of ..., 2008 - Elsevier
... Sinonasal diseases are well known for causing referred headache and facial pain over the area of the ... cell was the frontal area (64%), face (36%), periorbital area (36%), and nose (18 ... with variations of the middle turbinate as a major contributor to the contact point headache [2 ...

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... More recent observations do not support the presence of multiple contact point headaches. ... No association was reported among headache, facial pain, SNOT-20 scores, and abnormalities on ... Some patients complain that their nose feels blocked, but there is no measureable ...

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... wall and contact point can be visualized either endoscopically or radiologically on CT scan. The nasal mucosal contact point in the physiological status of the nose is best detected on CT scan of paranasal sinus. As we found no association with headache, facial pain and nasal ... 

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