

REVIEW ARTICLE

Endoscopic Closure of Septal Perforations[☆]

Isam Alobid



Unidad de Rinología y Base de Cráneo, Departamento de ORL, Hospital Clínic, Instituto de Investigaciones Biomédicas August Pi i Sunyer (IDIBAPS), Universidad de Barcelona, Barcelona, Spain

Received 31 January 2017; accepted 16 February 2017

KEYWORDS

Surgical closure;
Pedicle flaps;
Endoscopy;
Septal perforation

Abstract

Objective: The management of septal perforations is a challenge for the surgeon. A wide variety of surgical techniques have been described, with different approaches. There is no scientific evidence to support a particular approach. The objective of this review is to present a practical guide on the technique of choice for each case of septal perforation.

Discussion: Inspection of the nasal mucosa, the size of the perforation, the location and especially the osteo-cartilaginous support, are the pillars of a successful surgery. For the sliding or rotating flaps of the mucosa of the septum it is essential to know in advance if the elevation of the mucopericondrium or mucoperiosteum of the septum is possible, otherwise the use of these flaps would not be indicated. The flaps of the lateral wall or nasal floor are the alternative. The pericranial flap may be indicated in total or near total perforations.

Conclusion: The remnant of the nasal septum and status of osteo-cartilaginous support are the determining factors in the management of septal perforations. Each case should be evaluated individually and the approach chosen according to the size and location of the perforation, mucosal quality, personal history, previous surgery and the experience of the surgeon.

© 2017 Elsevier España, S.L.U. and Sociedad Española de Otorrinolaringología y Cirugía de Cabeza y Cuello. All rights reserved.

PALABRAS CLAVE

Cierre quirúrgico;
Colgajos pediculados;
Endoscopia;
Perforación septal

Cierre endoscópico de las perforaciones septales

Resumen

Introducción: El cierre quirúrgico de las perforaciones septales sintomáticas a menudo conduce a resultados no satisfactorios. El conocimiento de la irrigación vascular es de suma importancia para el éxito.

Objetivo: El manejo de las perforaciones septales constituye un reto para el cirujano. Hay descritas una gran variedad de técnicas quirúrgicas, con distintas vías de abordaje. No existen pruebas científicas que avalen un abordaje en concreto. El objetivo de esta revisión es presentar una guía práctica sobre la técnica de elección para cada caso de perforación septal.

[☆] Please cite this article as: Alobid I. Cierre endoscópico de las perforaciones septales. Acta Otorrinolaringol Esp. 2018;69:165–174.
E-mail address: isamalobid@gmail.com

Discusión: La inspección de la mucosa nasal, el tamaño de la perforación, la localización y, sobre todo, el soporte osteocartilaginoso son los pilares para lograr el éxito de la cirugía. Para los colgajos de deslizamiento o rotación de la mucosa del tabique es fundamental haber estudiado previamente si es posible la elevación del mucopericondrio o mucoperiosteo del septum, de lo contrario, el uso de estos colgajos no estaría indicado. Los colgajos de la pared lateral o del suelo nasal son la alternativa. El colgajo pericraneal podría estar indicado en perforaciones totales o casi totales.

Conclusión: El remanente del septum nasal y el estado del soporte osteocartilaginoso son los factores determinantes en el manejo de las perforaciones septales. Cada caso debe valorarse individualmente y la elección del abordaje se realiza según el tamaño y la localización de la perforación, la calidad de la mucosa, los antecedentes personales, la cirugía previa y la experiencia del cirujano.

© 2017 Elsevier España, S.L.U. y Sociedad Española de Otorrinolaringología y Cirugía de Cabeza y Cuello. Todos los derechos reservados.

Introduction

Septal perforation (SP) is defined as a direct communication between the nasal cavities, produced by a defect in any part of the mucosa, sub mucosa and perichondrium, in addition to the septal osteocartilaginous skeleton.

The aetiology of SP is highly varied. The most common causes are iatrogenic, secondary to a bilateral laceration of the septal mucosa during rhinoseptoplasty. Nasal traumas, septal cauterisations for epistaxis, recumbancy from nasogastric feeding tubes and inhalation of toxic substances (cocaine) may also cause a SP. However, the presence of a perforation may also be the first clinical sign of a systemic inflammatory illness such as granulomatous polyangiitis, sarcoidosis, systemic erythematous lupus, neoplasms or infections.¹

Assessment of a patient with SP should include meticulous study of their medical history, physical examination and diagnostic studies (Fig. 1).

1. The *medical record* should probe into general symptoms.
2. The *physical examination* should include appropriate assessment of the ENT tract with a correct inspection and nasal endoscopy as well as a complete physical examination.
3. *Diagnostic studies* will be performed based on data obtained in anamnesis and will comprise an analysis, which should include a complete haemogram, biochemistry, renal function, antinuclear antibody, anticytoplasmatic neutrophil antibodies, speed of glomerular sedimentation and cocaine in urine test imaging tests include computerised tomography of paranasal passages and a chest X-ray. Biopsy is of particular relevance in cases where there is suspicion of neoplasm or granulomatosis.²

Clinical Signs

SP area generally asymptomatic but on occasion they may cause significant morbidity. Associated symptoms include

nasal congestion and obstruction, the formation of scabs, recurrent epistaxis and whistling through the nose. Apart from symptoms relating to SP, patients may also show signs of the illness which is the cause of the perforation (for example, lupus, granulomatous polyangiitis).¹

Assessment

A small posterior perforation may not cause any symptom and it is probable that no surgical closure is required. The success of surgery depends to a large extent on the condition of the surrounding tissues, the cartilages and the blood supply. Conservative treatment of perforations includes nasal irrigation with an isotonic saline solution, the application of an antibiotic ointment or vitamins. One viable option is closure of the defect with siliconised prosthesis (nasal septal buttons). However, these require constant nasal lavage and even repetitive replacing, may be badly tolerated and even lead to nasal blockage or an increase in the size of the SP. Surgical procedures are indicated when conservative treatment fails.

There is no consensus on SP size classification and it is quite difficult to compare the results of different studies. Despite this, the defects over 2 cm long are generally accepted as being large and continue being a challenge for surgeons. It is essential to understand the vascularisation of the septum and the lateral nasal wall to perform a complete closure of the perforation with the use of pedicle flaps.

Vascularisation

Irrigation of the nasal septum and the lateral nasal wall includes blood vessels coming from the external carotid artery (maxillary and facial artery) and from the internal carotid artery (ophthalmic artery) (Fig. 2).

Branches of the Maxillary Artery

The maxillary artery (MA) is one of the 2 main terminal arteries of the external carotid artery.³

Download English Version:

<https://daneshyari.com/en/article/8804936>

Download Persian Version:

<https://daneshyari.com/article/8804936>

[Daneshyari.com](https://daneshyari.com)