

NASAL CONGESTION AND OBSTRUCTION

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PEARLS

Nasal congestion could be due to structural abnormalities within the nose or inflammatory conditions affecting the nasal lining.

Medication can result in changes of nasal blood flow and/or secretions resulting in symptoms of congestion.

Anterior rhinoscopy should be performed prior to the use of any decongestant

PITFALLS

Causes are often multifactorial and addressing only one factor may not resolve the symptoms.
Nasal obstruction in the presence of a blood stained discharge requires a thorough examination of the nasal cavity and postnasal space



INTRODUCTION

- The nose has two main functions: olfaction and respiration
- Anatomical abnormalities resulting in obstruction include:
 - A. Deviated nasal septum
 - B. Turbinate hypertrophy
 - C. Nasopharyngeal obstruction by enlarged adenoids
 - D. Neoplastic lesion, benign or malignant
 - E. Rare condition (Wegener's, sarcoidosis)

INTRODUCTION

- Mucosal congestion and nasal obstruction may occur:
 - A. inflammatory reaction including allergy
 - B. neuromuscular imbalance known as vasomotor rhinitis
 - C. hormonal influence
 - D. medication

CASE 1

- 25 yr old female with 3 year history of nasal obstruction and running nose.
- Moved to NZ 5 years ago



Very common in NZ. Affects nearly 25% of adults and 40% of children. Due to IgE mediated inflammation of the nasal mucosa by an allergen. Commonly associated with other atopic conditions It may be seasonal or perennial.

Clinical History:

Most patients present with itchy nose, sneezing, rhinorrhea, and nasal congestion. Other symptoms may include eye and ear itching as well as watery eyes. Pediatric patients commonly present with fatigue as a primary symptom.

Clinical Examination:

Abundant clear mucus stranding can be seen along the nasal mucosa. The turbinates may be boggy and have a purplish hue.

The presence of a nasal crease due to repetitive nose wiping

Investigations:

History is key to diagnosis Imaging is not usually necessary unless chronic sinusitis suspected. RAST & IgE tests or Skin Prick tests

Treatment involves a combination of environmental control, pharmacotherapy, and immunotherapy. Allergen avoidance is commonly recommended but not always possible.

Antihistamines

- Oral
- Topical – nasal and ocular Steroids
- Topical – intranasal corticosteroid sprays and ocular steroids.
leukotrine modifiers, mast cell stabilizers, nasal decongestants, nasal hygiene (Saline rinsing of nose)
- Surgery may be an option if the inferior turbinate remains hypertrophic while on pharmacotherapy. Patients need to remain on therapy post

CASE 2

- 52 year old male with 4 months history of nasal obstruction and congestion.
- has been using Otrivin for last year



Epidemiology/Pathogenesis:

Presence of nasal symptoms in the absence of allergic triggers.

Idiopathic rhinitis, Occupational rhinitis, Medication induced rhinitis (Nifedipines (Adalat etc) Dopamenergic antihypertensives, Beta-blockers, Antihistamines, ACE-inhibitors, Resperidone Sildenafil/ Viagra, Tacrolimus, Ventolin, Anti-virals, Progeterones and estrogens

Rhinitis Medicamentosa, Vasomotor rhinitis (Due to autonomic nervous system dysfunction) Atrophic rhinitis

Clinical History:

History is important to make the diagnosis. Patients may present with nasal congestion, postnasal drip, rhinorrhea, pressure on the face, sneezing, and occasional sore throat.

Symptoms occurred after certain medications were started or at work or after a sinonasal surgical procedure

Examination Findings:

Nasal examination may show dry pale mucosa. The turbinates may be hypertrophic. The nasal cavity may be widely patent as demonstrated by (Spatula test) misting of a cold mirror or tongue depressor Oral cavity may show posterior pharyngeal wall cobblestone

A thorough history of the patient's symptoms and general health can help pinpoint the nature of the rhinitis. Where symptoms are, long standing causes of perennial allergy need to be investigated. Specific testing may be necessary.

Treatment Options:

Treatment options differ depending on the etiology of the non-allergic rhinitis: Idiopathic rhinitis

- Intranasal antihistamines and intranasal steroids may help
- Daily nasal saline sprays and irrigations in addition to the above
- Inferior turbinate reduction
- Vidian Neurectomy

CASE 3

- 32 year old with nasal obstruction post rugby injury



Clinical History:

Patients most commonly presents with unilateral fixed nasal obstruction.

Do ask about: History of trauma to nose. History of use of nasal steroid sprays with no relief noted History of prior nasal surgery

Examination Findings:

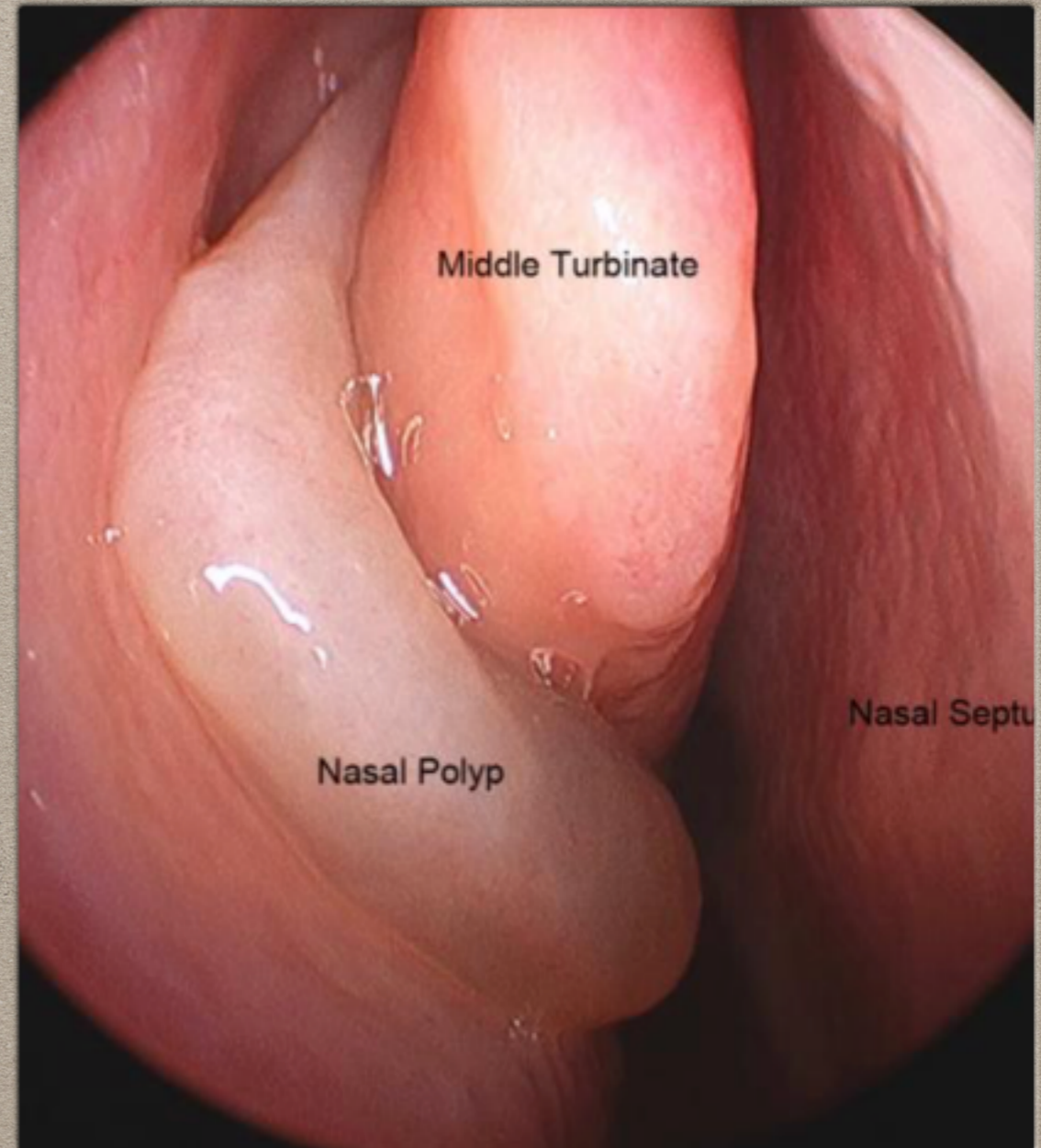
Examination should be done before and after decongestant has been applied. Using anterior rhinoscopy, visualize the nasal septum. Nasal endoscopy is warranted to assess the posterior septum.

Treatment Options:

- * Septoplasty/ Septorhinoplasty +/- Turbinate reduction
 - * Endonasal vs External approach

CASE 4

- 35 year old male with 1 year history of nasal obstruction, discharge, post nasal drip, anosmia



Epidemiology/Pathogenesis:

Most commonly occur in response to chronic inflammation, whether from chronic infection or chronic allergic responses.

Clinical History:

History of nasal obstruction. Other nasal symptoms include hyposmia, rhinorrhea, facial pressure, postnasal drip. A history of aspirin sensitivity, Asthma and other atopic conditions may be noted.

Typical Exam Findings:

Using anterior rhinoscopy, an oedematous grey mass may be seen. These do not shrink with application of topical decongestants (unlike turbinates). Polyps are insensate (unlike turbinates)

Nasal endoscopy should be performed.

Investigations:

A CT Sinus is performed to visualize the extent of the polypoidal disease. All unilateral polyps should be referred to an ENT surgeon to exclude malignancy.

Treatment Options: