

# Chronic rhinosinusitis with nasal polyps : Predictive factors of surgery results

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## Abstract

Nasosinus polyposis is a particular form of chronic sinusitis characterized by **multifocal, bilateral** edematous degeneration of the **ethmoidal** mucosa. Although benign, this pathology produces disabling symptoms that impair patients' **quality of life**. The surgical treatment remains controversial, particularly with regard to **prognostic factors**.

## Objectifs

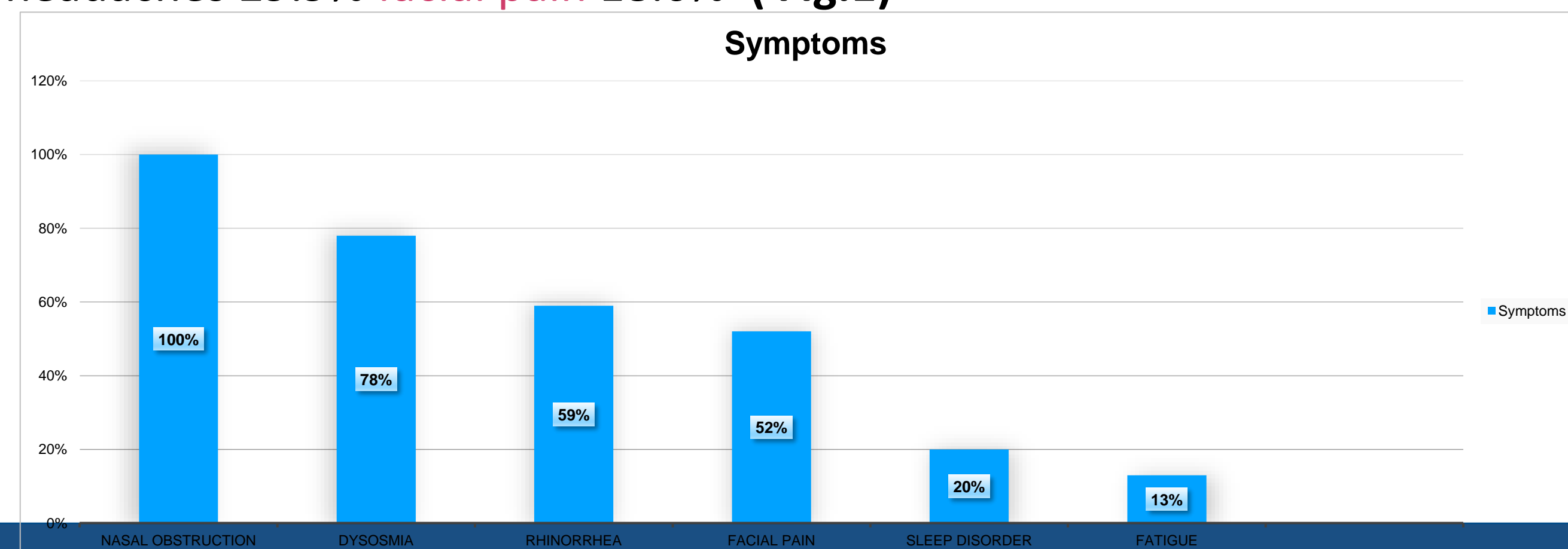
The aim of our work was to evaluate the **results of endoscopic surgery** of the Chronic Rhinosinusitis with Nasal Polyps (CRSwNP) as well as to identify the factors influencing these results.

## Méthodes et Matériels

- **Retrospective** study of 107 patients operated for CRSwNP at the ENT department of the Mohamed Taher Maamouri hospital in Nabeul
- Period : from 2009 to 2020 - minimum insight : two years
- Functional outcome assessment based on post-operative modified Sino-Nasal Outcome Test (SNOT) score (based on **SNOT-22**) compared to preoperative modified SNOT. The anatomical result was judged by endoscopy showing polyps recurrence.

## Résultats

- ❑ **Medium age** : 43 year old . Sex ratio :1,1.
- ❑ **Patients history** : **Aspirin intolerance** 22% , **asthma** 41% , **Widal's** disease 19
- ❑ **Symptoms**: **nasal obstruction**: all patients, **smell disorders** in 72.8%, chronic **rhinorrhea** 55.1%, headaches 29.9% **facial pain** 18.6% ( **Fig.1**)



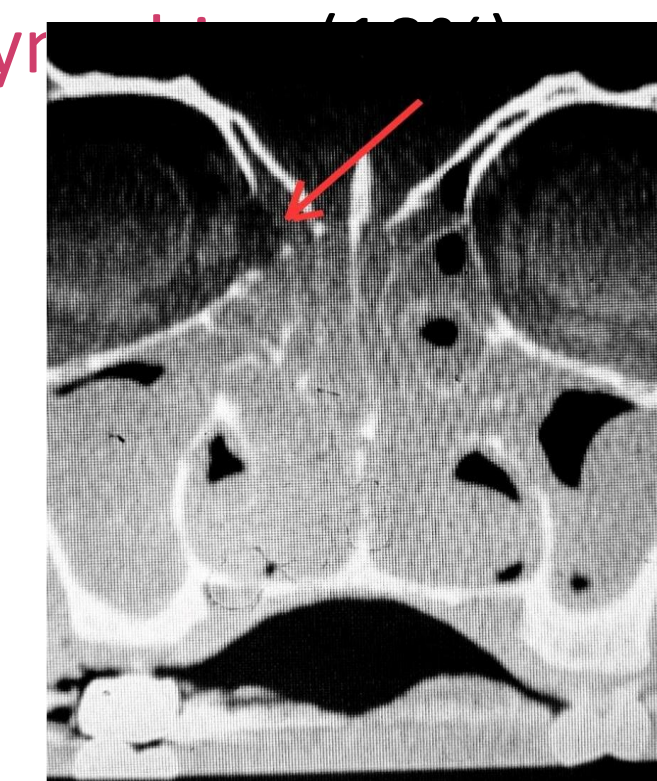
**Fig1 :** The most common symptoms

## Résultats

- ❑ **Clinical findings**: **bilateral polyps grade II** 63,2% ,( **Fig.2**) **bilateral polyposis grade III** 36,8%
- ❑ **CT scan** : for all patients 45,2% with anatomical variations ( **Fig.3**)
- ❑ **Surgical procedure** : **Polypectomy** : 51.4% - **Functional ethmoidectomy**: 48.6%
- ❑ **Post 24 months of decline** : 98% of patients reported overall satisfaction.
- ❑ **Most improved sign** : **Nasal obstruction** 74% improvement after two years.
- ❑ **Less improved symptom** : **Dysosmia** (49% of cases). **Polyp recurrence** : 17% of patients post 36 months.
- ❑ **Post-operative complication** : none
- ❑ **Long term complications** dominated by **syndrome of empty nose**



**Fig.2 :** Endoscopic image of polyposis classified as stage II



**Fig.3 :** Coronal section CT scan of facial mass showing bilateral ethmoidal and maxillary filling associated with dehiscence of the right papyraceous lamina (red arrow).

- **Functional results influencing factors after surgery** : asthma, the type of NP and premedication
- **Factors significantly associated with recurrence** : Polypectomy and high endoscopic scores ; relative risk of 5.3 and 4.2 respectively.

## Conclusion

CRSwNP , through its various techniques, has an important place in medical care of the disease. Several factors influence the choice of the appropriate technique as well as the postoperative results. Knowledge and good control of these factors contribute to optimizing the medical prognosis of the disease.

## Références

Hutson K, Clark A, Hopkins C, Ahmed S, Kumar N, Carrie S, et al. Evaluation of smoking as a modifying factor in chronic rhinosinusitis. JAMA Otolaryngol Head Neck Surg. 2021 Feb;147(2):159-65 ; Elkorbi A, Kolsi N, Alaya B, Benrhaïem Z, Harrathi K, Koubaa J. Polyposse nasosinusienne : existe-t-il des facteurs prédictifs de récidence après traitement chirurgical ?. Ann Otolaryngol Chir Cervicofac. Oct 2014;131 Suppl 4:S155.