

## EDITORIAL

# Quality of life after rhinologic surgery (radical versus endoscopic approach)

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Quality of life (QoL) is a well-recognised outcome measure for the assessment of the impact of disease on patients. The results of the quality-of-life questionnaire must be interpreted with care. A problem with quality-of-life studies is the clinical relevance of the differences in quality-of-life scores<sup>1</sup>. The fact that the difference is statistically significant may not be enough.

Speaking about quality of life after rhinologic surgery is rather difficult in a country where, due to economic problems and people's mentality, this subject has received little medical attention. For a long period of time, the main objectives of the medical care in Romania have been cure rates, number of patients and "performant statistics" for the medical system. Nowadays, the things are discussed and assessed in a realistic and correct manner.

Rhinosinusal pathology is one of the most frequent causes of diseases which impair quality of life. Sometimes, patients may consider these conditions more important than angina, asthma or chronic pulmonary disease. Most clinical studies which evaluated the treatment of rhinosinusitis have primarily evaluated outcomes in terms of rhinometric measurements, CT scans, IgE levels and complication rates<sup>2</sup>. However, all these results fail to capture the main reason why patients come to specialists and evaluate their care – to improve their physical status, interpersonal relationships and general psychological well-being, social and professional functioning.

## Nasal symptoms and QoL

Impairment of the quality of life in terms of patient's complaints means, in most of the cases, nasal obstruction, rhinorrhea, hyposmia, halitosis, headache, all of them leading to the above mentioned disfunctions of the personal and professional life<sup>3</sup>. Employing extended approaches through sinuses to access the skull base, orbit and optic nerve can result in changes in the patient's perception of their quality of life.

The leading complaints within the symptoms profile of patients with sino-nasal diseases are nasal obstruction and nasal drip<sup>4</sup>. Nasal obstruction, primarily due to nasal congestion and inflammation, is the main symptom leading to sleep problems, impaired capacity of work, inability of concentration and different complaints due to oral respiration. There are studies which show that nasal obstruction is associated with a rate of insomnia ten times higher than in normal subjects<sup>3,5</sup>. The nasal airway resistance can be measured by different methods like rhinomanometry and acoustic rhinometry. However, all these measurements do not always agree with patients' perception of nasal obstruction, and its impact upon their day-to-day life.

Chronic nasal obstruction can lead in time at extranasal symptoms like headache, fatigue, daytime sleepiness, even to obstructive apnea-hypopnea syndrome and thus at a decline of their quality of life<sup>6</sup>.

Rhinorrhea is important as parameter of the QOL due to the fact that it exposes the patient to embarrassing social and professional situations and determines halitosis (bad breath). The im-

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**Received for publication:** September 4, 2023 / **Accepted:** September 11, 2023

paired sense of smell determines social and personal frustration. Headache implies major problems in the patient's wellbeing, starting with the capacity of concentration, professional performances and the ability to satisfy personal hobbies like sports.

### **Sino-nasal surgery and QoL**

Surgery of the nose and sinuses involves changes in the quality of life due to specific stress factors, such as the admission in a hospital, the type of anaesthesia, the administration of the medication and the risks of the surgical procedure. It is obvious that all these aspects require a detailed and fair explanation, which is part of the preoperative meetings of the surgeon with his patient.

Another stress factor is related to the expectations of the patient regarding the significant changes in the quality of life after the surgical procedure. Sometimes, a longer period of recovery due to excessive crusting or postnasal drip determines a poor perception of the QoL after the surgery. This is why it is very important to correlate the symptoms intensity with nasal endoscopic aspects and CT findings to determine the correct surgical procedure.

When we are speaking about the type of surgery, it is mandatory to make the patient understand that the chosen procedure is the most appropriate for the disease. Generally speaking, there are two major types of surgical procedures used for the rhinosinusal diseases – external approaches (radical or non-functional surgery) and endoscopic procedures.

Endoscopic sinus surgery is typically reserved to documented rhinosinusitis, based on history, complete physical examination and CT scan<sup>3,7</sup>. More and more, selected nasal masses and tumors are being removed endoscopically. Endoscopic approaches may also be applied for orbital decompression, dacryocystorhinostomy (DCR), optic nerve decompression and even cerebrospinal fluid leak (CSF leak).

Nowadays, the endoscopic approach could be divided into three categories:

1. functional endoscopic sinus surgery techniques (Wigand's concept);
2. radical endoscopic sinus surgery (Jankowski);
3. extended approach "through" the sinuses to reach the skull base, orbit and optic nerve.

Each type of approach means generally the same problems related to the quality of life, but specific conditions are described due to each surgical procedure<sup>8</sup>.

The external approach could increase the negative perception of the patient due to packing,

drains, aesthetic impairments and the prolonged period of admission. The necessity for a long period of medical treatment could add some problems for the patients (side effects, etc).

Endoscopic surgery means, first of all, well-known advantages, but there are also a lot of related problems<sup>3,9</sup>. Crusts and scarring seem to be the main problems to deal with.

At one of the American's Academy of ENT&HNS meetings, an interesting concept known as "the global period from FESS to zero" was discussed. The ENT surgeons should perform the necessary postoperative debridement (removal of crusts, scar tissue, recurrent polypoid tissue, etc.) in both the immediate post-operative period and afterwards, depending on the case. In many patients, meticulous postoperative long-term care is required, especially in those with chronic diseases, such as bacterial chronic infection, fungal sinusitis, recurrent polyposis, Samter's triad. At the same time, it is recommended that the specialists prescribe a complete medical treatment in order to control the chronic disease process and subsequently decrease the need for frequent debridement.

### **Quality care is expensive.**

All over the world, many medical insurers have gotten around the zero global period by allowing care to be rendered by their contracted providers every 90 days<sup>10</sup>. These insurance companies have made doctors feel guilty about billing the postoperative follow-up, calling them as "overutilizers". Similarly, other doctors performed the procedure but did not bill for it. This attitude and practice are unfair to the patients that need and do not receive postoperative care. As a consequence, their quality of life will probably be diminished, with a higher risk of complications of sinus disease and an increased need for revision surgery. Furthermore, it should decrease the costs of long-term care and significantly improve patients' QoL.

In Romania, things are still unclear because the private health insurance system is still not widely accessible. We usually prolonged the period of debridement and follow-up depending on the evolution of each case and with no fees.

## **CONCLUSIONS**

Rhinosinusal pathology has a greater impact on certain aspects of QoL than conditions such as asthma, angina, chronic pulmonary disease. Health-related QoL is useful for rhinosinusal diseases where the objective tests poorly correlate

with disease severity and outcomes.

Patients with rhinosinusitis disease have significant decrease in the quality-of-life parameters. The restriction in QoL is mainly due to nasal obstruction and postnasal drip, which can be significantly improved through endoscopic surgery.

Radical surgery offers almost the same results, but leads to another kind of complaints from the patients due to the aesthetic defects, packing, longer period of admission, etc.

Patients with rhinosinusitis disease need a correct evaluation, surgery indication and most of all a correct follow-up to make the patients feel better in terms of their physical status, work and social activity, interpersonal relationships and general psychological well-being.

**Financial disclosure:** There are no financial disclosures of the author.

**Conflict of interest:** The author has no conflict of interest.

## REFERENCES

1. Benninger M.S., Senior B.A. - The development of the Rhinosinusitis Disability Index. *Arch Otolaryngol Head Neck Surg* 1997;123(11):1175-9.
2. Cunningham M., Chiu E.J., Gliklich R. - The health impact of chronic recurrent rhinosinusitis in children. *Arch Otolaryngol Head Neck Surg* 2000;126:1363-1368.
3. Sarafoleanu C, Enache R, Lupoi D. Quality of life after rhinologic surgery. *Romanian Journal of Rhinology*. 2011;1(1):12-5.
4. Damm M., Quante G., Stennert E. - Impact of functional endoscopic sinus surgery on symptoms and Quality of Life in Chronic Rhinosinusitis". *Laryngoscope* 2002;112(2):310-5.
5. Craig T.J., McCann J.L., Gurevich F., Davies M.J. - The correlation between allergic rhinitis and sleep disturbance. *J Allergu Clin Immunolog* 2004;114:S139-S145.
6. Udaka T et al. Relationships among nasal obstruction, daytime sleepiness and quality of life. *Laryngoscope* 2006;116(12):2129-2132.
7. Laababsi R, Bushra A, Elkrimi Z, Allouane A, Rouadi S, Abada R, et al. Quality of life outcomes of patients with chronic rhinosinusitis after functional endoscopic sinus surgery, prospective cohort study. *Ann Med Surg*. 2019;40:9-13.
8. Smith T. - Outcomes research in Rhinology – Chronic Rhinosinusitis. *ORL* 2004;66:202-206.
9. Shi L, Feng Y, Cui W, Yan K, Lv M, Hong Z, et al. Effect evaluation of repeated debridement after endoscopic sinus surgery. *Int J Clin Exp Med*. 2015;8(1):928-33.
10. Durr D.G., Desrosiers M.Y. – Impact of Rhinosinusitis in health care delivery – the Quebec experience. *J Otolaryngol*. 2001;30:93-97.



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