

Septoplasty – Predicting the Outcome

AKADEMISK AVHANDLING

Som för avläggande av medicine doktorsexamen vid Sahlgrenska akademien, Göteborgs universitet kommer att offentligens försvaras i Hjärtats aula, Blå stråket 5, Sahlgrenska sjukhuset, fredagen den 3 februari 2023 klockan 09.00

av **Lars Pedersen**

Fakultetsopponent:

Universitetslektor Krister Tano

Umeå Universitet, Sverige

Avhandlingen baseras på följande delarbeten

- I. Pedersen L, Schiöler L, Holmberg K, Ahlström Emanuelsson C, Hellgren J
Age and unplanned postoperative visits predict outcome after septoplasty: A national Swedish register study
International Journal of Otolaryngology. 2018; 2018:2379536
- II. Pedersen L, Schiöler L, Finjan S, Davidsson Å, Sunnergren O, Holmberg K, Ahlström Emanuelsson C, Hellgren J
Prognostic factors for outcome after septoplasty in 888 patients from the Swedish National Septoplasty Register
European Archives of Otorhinolaryngology 2019 Aug;276(8):2223-2228.
- III. Pedersen L, Dölvik S, Holmberg K, Ahlström Emanuelsson C, Schiöler L, Hellgren J, Steinsvåg S
Surgery to relieve nasal obstruction: outcome for 366 patients operated on by one senior surgeon
European Archives of Otorhinolaryngology 2021 Oct;278(10):3867-3875.
- IV. Pedersen L, Holmberg K, Ahlström Emanuelsson C, Schiöler L, Steinsvåg S, Hellgren J
A comparative study of men and women undergoing septoplasty – the Swedish National Septoplasty Register
Submitted

SAHLGRENSKA AKADEMIN
INSTITUTIONEN FÖR KLINISKA VETENSKAPER



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Lars Pedersen

Department of Otorhinolaryngology, Head and Neck Surgery, Institute of Clinical Science, Sahlgrenska Academy, University of Gothenburg, Sweden, 2023

Abstract

Septoplasty is one of the most common surgical procedures at ENT clinics around the world. The reason for undergoing a septoplasty is nasal airway obstruction that does not respond to any other treatment. The most common medical management includes topical nasal spray (corticosteroids), saline rinsing and perhaps nasal strips physically to alleviate obstruction. In most material published on septoplasty, men are overrepresented. Around 70% of the patients are usually men and the mean age at surgery is 35-40 years. Since the results of septoplasty vary a lot, with a satisfaction rate ranging from under 50 % in some material up to around 90 %, the purpose of this thesis was to try to find predictors of a better outcome.

Methods/results: Paper I, a register study based on material from the Swedish National Septoplasty Register (SNSR). We aimed to study predictors of a better outcome six months after surgery. Including almost 6,000 patients, we found that higher age, surgery at small hospitals and no unplanned visits to the hospital postoperatively predicted a better outcome. **Paper II**, a register study with material from the updated SNSR including 888 patients. When comparing patients' severity of nasal obstruction pre- and 12 months postoperatively, we found that the nasal obstruction improved in 63% of the patients. Patients with severe nasal obstruction preoperatively improved the most at follow-up. **Paper III**, based on material including 366 patients operated on by a senior surgeon at one clinic. The Nose-VAS improved significantly for all patients after surgery. Septoplasty and septoplasty + turbinoplasty relieved nasal obstruction more effectively than turbinoplasty alone. **Paper IV**, material from the SNSR during a period of six years (2014-2019), including 2,532 patients and focusing on gender differences between male and female patients undergoing septoplasty. When analysing preoperative PROMs (patient-reported outcome measures) and postoperative outcome between genders, we found the results were very similar for all the included patients.

Conclusion: Higher age and no unplanned postoperative visits within the first month after surgery predict a better outcome after surgery. Severe nasal obstruction preoperatively predicts a better outcome after surgery. The reason for the overrepresentation of men in septoplasty material remains unclear and no gender differences were seen comparing gender pre- and postoperatively.

Keywords: Nasal obstruction, Outcome, PROM, Septoplasty, Turbinoplasty

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