

Short-Term Complications Following Septoplasty in Pediatric Patients

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Introduction

- Nasal septoplasty in the pediatric population is controversial and there is limited data describing associated complications.
- Reports commonly focus on long-term complications such as septal perforation, facial growth and deformity. Short term adverse events are thought to be uncommon (1).
- Pediatric patients are more likely to require a revision compared to adults (2).
- Study Objective:** to describe short-term septoplasty complications and complaints among pediatric patients.

Methods and Materials

- A retrospective chart review was performed for all septoplasty patients during a five-year period at a tertiary academic medical center between 2017 and 2022.
- All included patients were less than 18 years of age at the time of surgery.
- Age, surgery type, co-morbidities, and complications were recorded.
- Surgery-type groups were compared using Fisher's exact test.

Results

- Sixty-four patients were included, with a mean age of 13.59 (SD = 3.77).
- There were a total of 30 complaints voiced by 26 patients, with the most common being bleeding.
- Of the 12 patients with postoperative bleeding, one required bedside cautery. Ten patients complained of more than one symptom.
- On average, symptoms were reported 10.43 days after surgery.
- No occurrences of septal hematoma or septal perforation were noted among the study group.

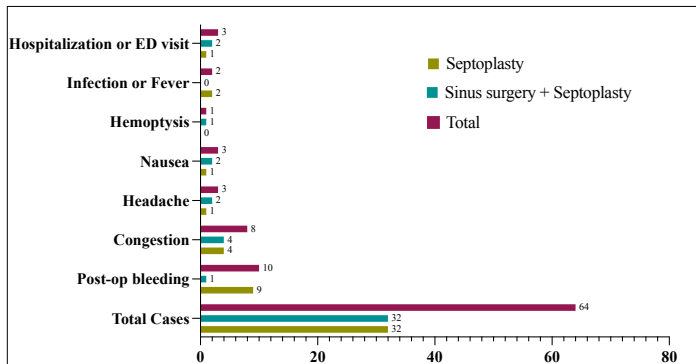


Figure 1. Patients were grouped by surgery type: septoplasty (n=32) or sinus surgery with septoplasty (n=32). Overall post-operative complaints were not statistically different between groups (p=0.35). Further analysis revealed a greater rate of bleeding reports in the septoplasty-only group compared to sinus surgery and septoplasty (21.9% vs 3.03%, p=0.036).

Symptom	Total	Septoplasty	Sinus Surgery & Septoplasty	p
Bleeding	10	9	1	0.039*
Congestion	8	4	4	>0.99
Headache	3	1	2	>0.99
Nausea	3	1	2	>0.99
Hemoptysis	1	0	1	>0.99
Infection or fever	2	2	0	0.49
Hospitalization or ED visit	3	1	2	>0.99
Total	30	18	12	0.39

Table 1. Total patient symptoms after surgery.

Discussion

- There are limited prior reports of short-term complications following septoplasty in pediatric patients.
- This study found that most short-term complaints were mild and included headache, nausea, bleeding, congestion, fever, and hemoptysis. Of these, bleeding and nasal congestion were most commonly reported.
- To our knowledge, this is one of the largest studies to date, to characterize the complications of nasal septoplasty in children.

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References

- Benyo, S., Morocco, A. E., Saadi, R. A., Patel, V. A., King, T. S., & Wilson, M. N. (2023). Postoperative Outcomes in Pediatric Septoplasty. *The Annals of otology, rhinology, and laryngology*, 132(9), 1050–1058. <https://doi.org/10.1177/00034883231120677>
- Shah, J. P., Youn, G. M., Wei, E. X., Kandathil, C., & Most, S. P. (2022). Septoplasty Revision Rates in Pediatric vs Adult Populations. *JAMA otolaryngology--head & neck surgery*, 148(11), 1044–1050. <https://doi.org/10.1001/jamaoto.2022.3041>