

# Inferior Turbinate Reduction and Superficial Posterior Nasal Nerve Branch Neurectomy in Allergic Rhinitis Patients

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## Information/ Background

In allergic rhinitis patients who are refractory to treatment, inferior turbinate reduction and posterior nasal nerve neurectomy can sometimes be an option. This procedure is often performed in the operating room under general anesthesia. However, patients are often reluctant to undergo this procedure for several reasons, such as the risks associated with general anesthesia, fear of having dense nasal packing after surgery, and lack of time for hospitalization. The aim of this study to assess the effectiveness of the in-office procedure of inferior turbinate reduction and superficial posterior nasal nerve branch neurectomy using radiofrequency under local anesthesia as an additional treatment option for allergic rhinitis patients inadequately controlled by standard therapy.

## Materials and Methods

Case series of four patients with allergic rhinitis symptoms underwent radiofrequency-based inferior turbinate reduction and posterior nasal nerve branch neurectomy under local anesthesia. The procedure took under two hours, required no hospitalization or nasal packing, and patients were discharged the same day. Symptom severity was recorded using a Visual Analogue Scale (VAS; 0–10) for nasal obstruction, rhinorrhea, sneezing, and nasal itching before and one week after treatment.

## Results

Patient No.	Week	Nasal obstructed	Nasal discharge	Nasal itchy	Sneezing
1 <sup>st</sup> (♂/31 y.o.)	Before treatment	6	5	6	6
	1 week after treatment	0	1	0	0
2 <sup>nd</sup> (♀/31 y.o.)	Before treatment	10	8	8	8
	1 week after treatment	0	1	1	1
3 <sup>rd</sup> (♂/29 y.o.)	Before treatment	9	5	9	9
	1 week after treatment	0	0	0	0
4 <sup>th</sup> (♂/34 y.o.)	Before treatment	8	3	7	7
	1 week after treatment	0	0	0	1

Note: No serious adverse effects were observed. The most common minor side effect was crusting with mild yellowish discharge at the surgical site.

## Conclusions

This minimally invasive approach using radiofrequency under local anesthesia appears to be a safe, effective, and time-efficient treatment option for allergic rhinitis patients who are inadequately controlled to conventional therapy. The technique offers the advantage of rapid recovery, avoidance of general anesthesia, and same-day discharge.

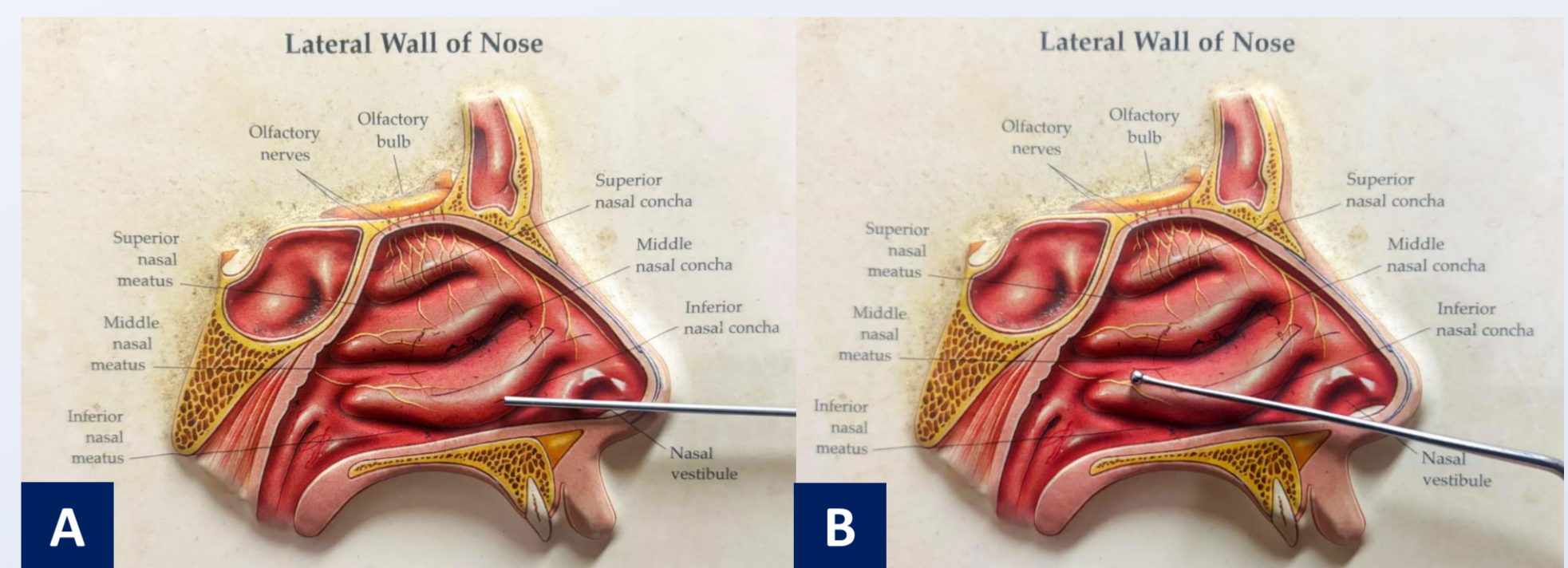


Figure 1 Site of inferior turbinate reduction (A) and superficial posterior nasal nerve branch neurectomy (B)

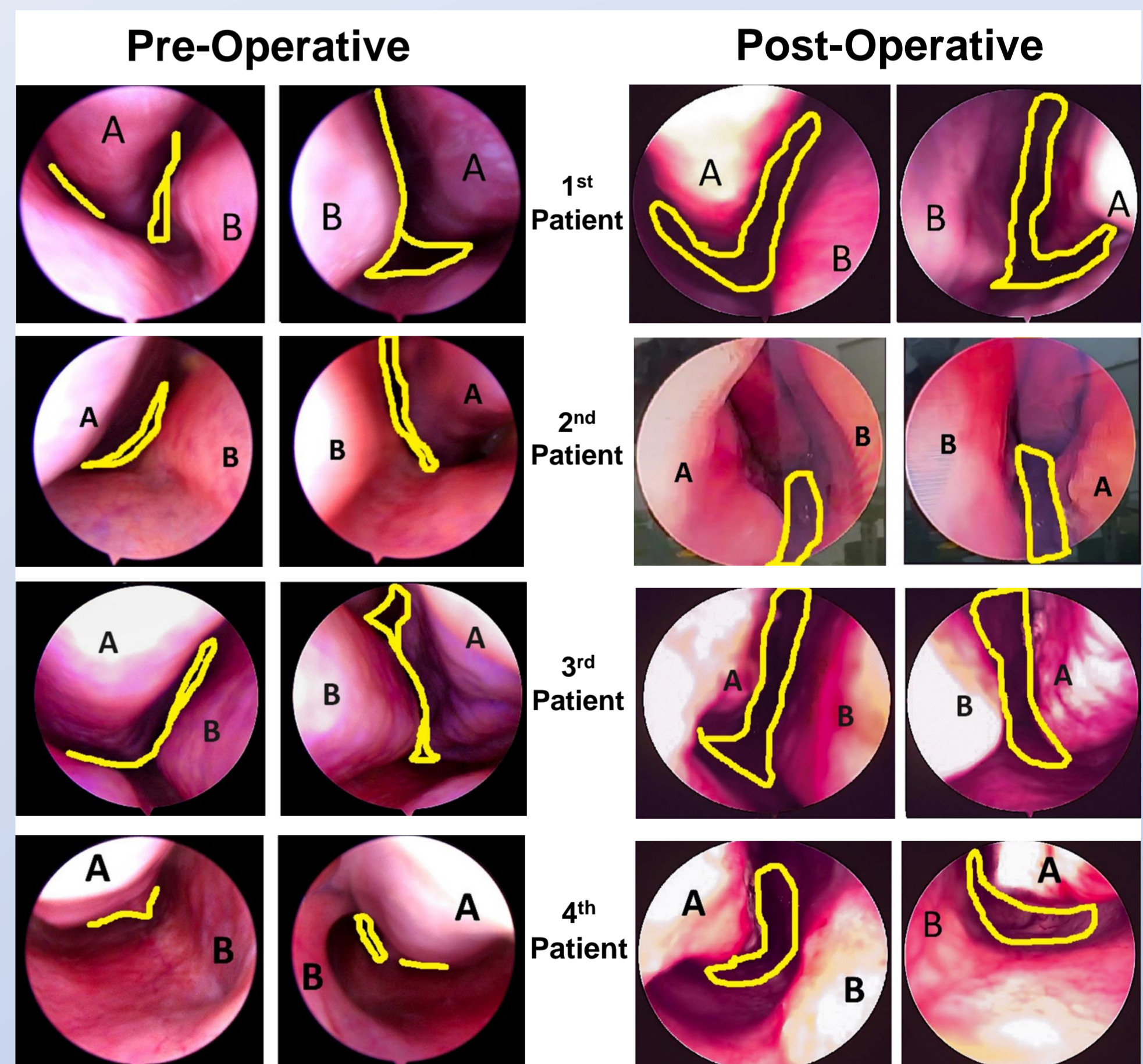


Figure 2 Pre- and Post- Operative nasal endoscopic views showing A: Inferior turbinate and B: Nasal septum; Nasal cavity outlined in yellow.