

# MEDIAL FLAP TURBINOPLASTY FOR POSTERIOR NASAL NEURECTOMY: A TRANS-TURBINATE ENDOSCOPIC CORRIDOR

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## Objectives

To evaluate the safety and efficacy of a single-corridor trans-turbinate endoscopic approach that allows simultaneous medial flap turbinoplasty and posterior nasal neurectomy in patients with refractory rhinitis, without the need for additional incisions.

## Materials and Methods

Five adult patients with chronic sneezing, rhinorrhea, and nasal congestion refractory to  $\geq 6$  months of medical therapy underwent medial flap turbinoplasty with PNN. Sino-Nasal Outcome Test (SNOT-22) scores were recorded pre- and post-operatively at 4 weeks. Endoscopic follow-up assessed mucosal healing and synechia formation.

## Surgical Technique

### 1. Debridement of the Anterior and Inferolateral Inferior Turbinate:

A 3.5 mm microdebrider was used to debride the anterior segment of the inferior turbinate up to the axilla, then continued posteriorly along the lateral and inferior surfaces toward the turbinate tail.

### 2. Creation of the Medial Flap:

The medial mucosa was dissected from the turbinate bone to form a flap. The lateral mucosa of the inferior turbinate, along with the underlying bone, was resected using supercut iris scissors, taking care to avoid injury to the Hasner's valve — a slit-like opening of the nasolacrimal duct located in the lateral nasal wall. Dissection was then continued until the vertical plane of the palatine bone was exposed.

### 3. Posterior Nasal Neurectomy:

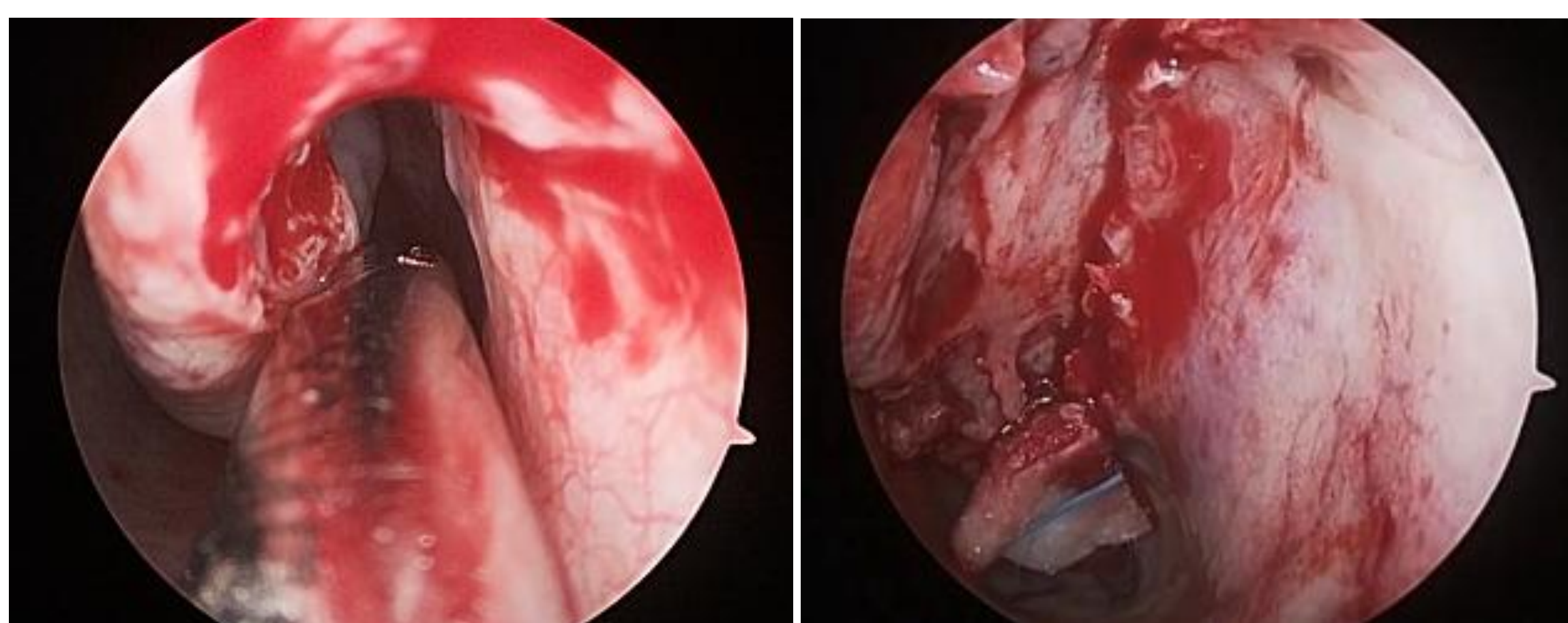
Dissection was advanced superiorly along the palatine bone to identify the PNN, which was transected and coagulated with bipolar cautery.

### 4. Hemostasis and Optional SPA Exposure:

Arterial branches encountered were cauterized. In selected cases, further dissection allowed exposure of the sphenopalatine artery for control.

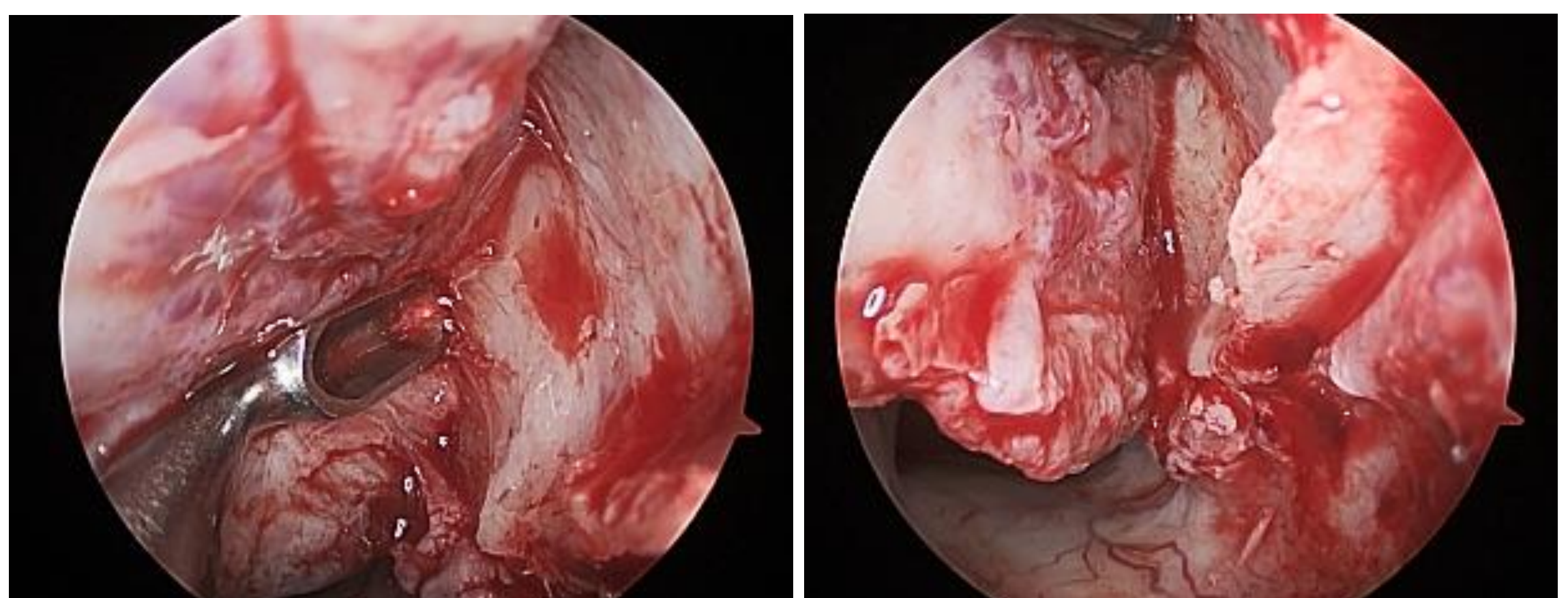
### 5. Flap Repositioning:

The medial flap was repositioned over the turbinate remnant. No sutures or nasal packing were used.



Figures 1

Figures 2



Figures 3

Figures 4



Figures 5

## Results

Mean SNOT-22 score improved from 54.2 preoperatively to 18.6 at 4 weeks, representing a 65.6% reduction in symptom burden. Postoperative scores approached normative population values ( $\sim 20$ ). No intraoperative complications occurred. No synechia or infections were observed.

## Conclusion

This single-corridor approach allows concurrent turbinate reduction and PNN without extra incisions, delivering significant symptom relief, optimal bleeding control, and fast mucosal healing.

