



## Nasal Polyp: The Diagnostic Dilemma - Exploring the Need for Biopsy

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### Abstract

**Background:** Nasal polyps can result from a wide variety of pathological entities which ranges from antrochoanal (AC) polyps to sinonasal malignancies, which are very difficult to distinguish clinically from each other. All nasal polyps should be subjected to biopsy so as not to delay appropriate treatment.

**Case Report:** 25 year old female presented with right nasal obstruction with watery nasal discharge. Diagnostic nasal endoscopy revealed a polypoidal mass with secondary changes filling the right nasal cavity. CT PNS was suggestive of AC polyp. Intra-op, fleshy mass was seen with frank bleeding after intra-op biopsy was taken. Multiple fragmented tissues were removed and sent for HPE. HPE revealed lymphoproliferative state favoring Non-Hodgkin lymphoma. But IHC markers for the same were suggestive of rhabdomyosarcoma.

**Conclusion:** To prevent delay in appropriate treatment, all nasal masses should be subjected to Biopsy pre-operatively, given the clinical similarity between the differential diagnoses of nasal polyp.

**Keywords:** Nasal Polyps;

### Background

Nasal polyps can result from a wide variety of pathological entities which ranges from antrochoanal polyps to sinonasal malignancies, which are very difficult to distinguish clinically and even radiologically from each other. With the advent of various tissue diagnostic tests, it is possible to arrive at an apt diagnosis and plan comprehensive management plan without any delay. Therefore, all nasal polyps should be subjected to biopsy before surgery.

### Objective

To evaluate the need for biopsy preoperatively in cases of nasal polyp.

### Case Report

25-year-old female presented to the ENT OPD with right nasal obstruction with watery nasal discharge since 1 month. Diagnostic nasal endoscopy revealed a polypoidal mass with secondary changes filling the right nasal cavity up to the vestibule. CT PNS was suggestive of an Antrochoanal polyp. The patient was planned for Functional Endoscopic Sinus Surgery under GA. Intra-op biopsy of the nasal mass was taken. A fleshy mass that bled profusely was noted. Multiple fragmented tissues were removed and sent for HPE. HPE revealed lymphoproliferative state favoring Non-Hodgkin lymphoma. However, IHC markers for the same were suggestive of rhabdomyosarcoma.

## Results

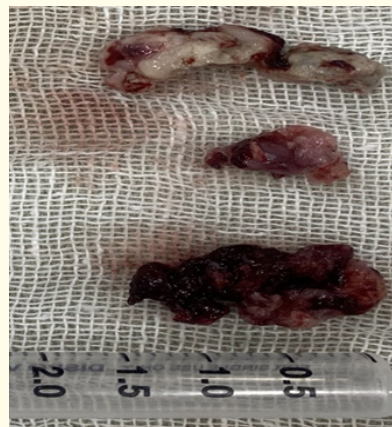
In this case, clinical history, diagnostic nasal endoscopy and CT PNS was suggestive of Right Antrochoanal Polyp (Figure 1 and 2). But, the intra-operative appearance of the nasal mass and excessive bleeding didn't quite comply with the working diagnosis (Figure 3). HPE revealed lymphoproliferative stage favoring Non-Hodgkins lymphoma (Figure 4). However, Immunohistochemistry was positive for CD-56 and Desmin (Figure 5), thus the final diagnosis being Rhabdomyosarcoma Stage 1, which was treated with Inj Vincristine and Inj Actinomycin D given in cycles. Patient was followed up with interval PET-CTs.



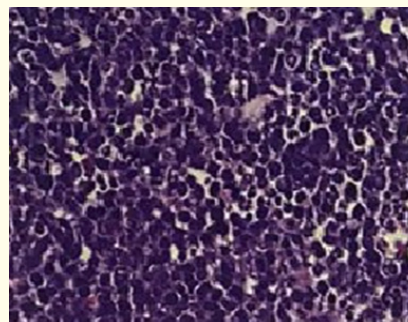
**Figure 1:** Diagnostic nasal endoscopy showing greyish polypoidal mass filling up to the vestibule of right nasal cavity.



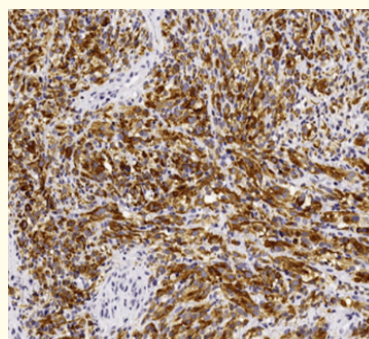
**Figure 2:** CT PNS suggestive of right antrochoanal polyp.



**Figure 3:** Intra-operative appearance of the nasal mass.



**Figure 4:** HPE revealed lymphoproliferative stage favoring Non-Hodgkins lymphoma.



**Figure 5:** Immunohistochemistry was positive for CD-56 and Desmin.

### Discussion

In order to plan the surgical intervention and for better patient and doctor acknowledgment of the nature of the disease, preoperative tissue diagnosis is recommended [1]. Nasal biopsy is a reliable tool and should be performed routinely as part of the preoperative work up, especially in cases of unilateral nasal masses as they are considered suspicious for proliferative diseases [2].

### Conclusion

In order to prevent delay in appropriate treatment, all nasal masses should be subjected to Biopsy pre-operatively, given the clinical similarity between the differential diagnoses of nasal polyp.

### Future Research

Standard step-wise protocol can be devised to investigate and treat all cases of nasal mass.

### Bibliography

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