

FIRST REPORTED CASE OF LOW-GRADE NON-INTESTINAL TYPE SINONASAL ADENOCARCINOMA PRESENTING AS A LOCALLY DESTRUCTIVE MASS FROM PAKISTAN:HIGHLIGHTING DIAGNOSTIC CHALLANGES FROM RESOURCE LIMITED SETTINGS

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INTRODUCTION

- Low-grade non-intestinal type adenocarcinoma (n-ITAC) accounts for approximately 13% of sinonasal adenocarcinomas and arises from seromucinous glands or surface respiratory epithelium.
- It predominantly affects males and carries a favourable prognosis with five-year survival approaching 85%.
- No case has been reported from Pakistan, representing a significant gap in literature for diverse demographics and resource-limited settings.

OBJECTIVE

- To report the first case of low-grade n-ITAC from Pakistan, highlighting the diagnostic discordance between radiological aggressiveness and low-grade histological findings, and to emphasise the role of immunohistochemistry in accurate diagnosis.

METHODS

- Design: Single-centre case report
- Setting: Department of Clinical Oncology, Sheikh Zayed Medical College and Hospital, Rahim Yar Khan, Pakistan
- Participant: 66-year-old hypertensive Pakistani female
- Timeline: May-June 2026Measures: Contrast-enhanced CT paranasal sinuses, histopathology,immunohistochemical profiling, renal function tests, transthoracic echocardiography
- Analysis: Clinicopathological correlation
- Ethics: Written informed patient consent obtained; data fully anonymised in accordance with institutional standards

REFERENCES

1.Turner JH, Reh DD. Incidence and survival in patients with sinonasal cancer: historical analysis of population-based data. Head Neck. 2012;34(6):877-85.

2.Agarwal A, Bhatt AA, Bathla G, et al. Update from the 5th Edition of the WHO Classification of Nasal, Paranasal, and Skull Base Tumors: Imaging Overview with Histopathologic and Genetic Correlation. AJNR Am J Neuroradiol. 2023;44(10):1116-25.

3.Li J, Li B, Xu J, et al. A retrospective review of non-intestinal-type adenocarcinoma of nasal cavity and paranasal sinus. Oncol Lett. 2023;25(3):132.

CASE PRESENTATION

- The 66-year-old Pakistani female with hypertension reported a four-month **history** of right-sided nasal obstruction, epistaxis, and increasing difficulty in breathing, with no notable additional medical, surgical, or family history.
- Contrast-enhanced CT** revealed a lobulated enhancing mass measuring 4.4×4.1×3.6 cm in the right nasal cavity, causing erosion of the hard palate, cribriform plate, and ethmoid air cells, extending into the maxillary sinus and nasopharynx, along with ipsilateral level IB and level II lymphadenopathy.
- Histopathological examination** showed a glandular neoplastic lesion with mild cytological atypia.
- IHC** results indicated diffuse CK7 and mucin positivity with focal weak p40 positivity; CK20 and CDX2 were negative, confirming low-grade n-ITAC.
- The **pre-treatment assessment** showed normal renal function and preserved cardiac function with an ejection fraction of 60%.
- Treatment:** Due to borderline resectability, neoadjuvant cisplatin and 5-fluorouracil were initiated, and a CT scan of the chest, abdomen, and pelvis was requested for comprehensive staging.

CONCLUSION

This case illustrates that low-grade n-ITAC can exhibit radiologically aggressive characteristics that do not align with its histological grade, challenging the notion that low-grade tumors are inherently indolent on imaging.

The patient's female sex and Pakistani background significantly broaden the known demographic profile of this rare malignancy. Clinicians should maintain a heightened awareness of this malignancy, irrespective of the patient's sex or ethnicity.

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