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Sinonasal Intestinal Type Adenocarcinoma

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Purpose
We would like to demonstrate the imaging characteristics of a case of biopsy-proved sinonasal intestinal-type adenocarcinoma and discuss some of the clinical features that may herald the possibility of this diagnosis.

Materials & Methods
A 67-year-old male patient underwent a CT scan at the local Veteran's Hospital for headaches. On the CT, a large soft tissue mass of the upper nasal cavity was seen and there was high density in both frontal lobes of the brain which was thought to represent hemorrhage or calcification. The patient subsequently underwent MR imaging of the brain with contrast at which time heterogeneous signal which was suggestive of hemorrhage was seen to involve both frontal lobes, particularly the gyrus rectus. There was also heterogeneous enhancement and mass effect in both frontal lobes. The mass extended through the cribiform plate and was contiguous with an enhancing mass of the superior nasal cavity.

Results
The patient had no history of primary malignancy, particularly adenocarcinoma of the gastrointestinal tract. The patient was seen by Head and Neck Surgery, and underwent a core biopsy of a large, tan mass of the upper nasal cavity. Pathology results showed this mass to represent a primary sinonasal intestinal-type adenocarcinoma. It is believed that this neoplasm invaded the frontal lobes through the cribiform plate and was the cause of marked mass effect and hemorrhage in both frontal lobes. The patient is to undergo an extensive surgical procedure which will be performed by Head and Neck Surgery and Neurosurgery, in an attempt to resect this neoplastic mass.

Conclusion
Sinonasal intestinal-type adenocarcinoma comprises almost 4% of the primary neoplasms of the nasal cavity according to various sources, and although rare, should be considered in the differential diagnosis of aggressive appearing masses in the nasal cavity, particularly with the appropriate clinical history. There are some clinical features that might be helpful in making this diagnosis ranging from occupational exposure to gender predominance. Although these neoplasms comprise almost 4% of the primary neoplasms of the nasal cavity, they have not been described to a great degree in the published literature. Also, we were unable to find another published case of primary sinonasal intestinal-type adenocarcinoma with intracranial spread. Other considerations in the differential diagnosis would be the more common aggressive lesions of the nasal cavity. Also, there is the possibility of metastatic adenocarcinoma to the nasal cavity which can be differentiated from the primary tumor by immunohistochemistry.