



PATIENT SPOTLIGHT

Organized Hematoma of the Maxillary Sinus

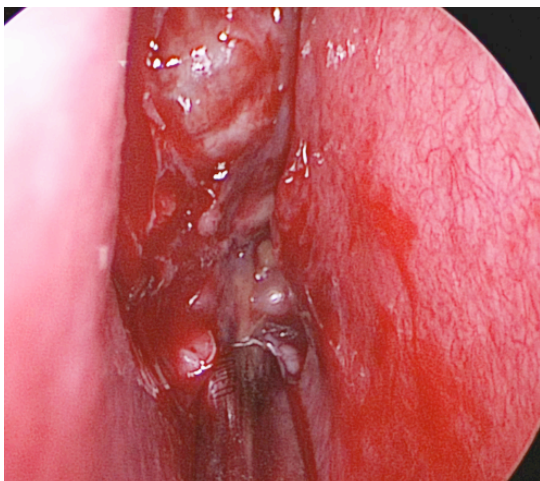


Fig 1a - Endoscopic view after intraop exposure



Fig 1b - CT sinus without contrast

A 45 year-old male presented with right sided spontaneous epistaxis with right nasal congestion and slowly progressive right facial swelling for 3 months. He reported no prior history of trauma and was not on anticoagulation. On exam, the patient had hypesthesia of the right infraorbital nerve with proptosis and on nasal endoscopy there was evidence of severe edema of the right middle meatus with no purulent drainage or pulsations.

His CT scan without contrast (Figure 1b) revealed an expansile mass within the maxillary sinus with extension into the ethmoid cavity. There was loss of bone of the orbital floor, medial orbital wall, and anterior maxilla. A MRI with and without contrast (Figures 2a and b) was performed which revealed heterogenous intensity on T2 and extension of lesion into the soft tissue of maxilla. The scan was read as consistent with low grade minor salivary gland neoplasm or sarcoma. A biopsy was performed under anesthesia that revealed fibrin and inflammatory tissue. After re-review of the pathology the possibility of a hematoma was entertained due to the presence of hyalinization, fibrosis, hemorrhage, and fibrin.

The lesion was resected with an endoscopic approach and multiple frozen sections were negative for tumor. Although the medial orbital wall was dehiscent the periorbita was intact. Upon removal of the lesion, proptosis resolved immediately and infraorbital nerve hypesthesia resolved on first postoperative day. The final pathology was consistent with an organized hematoma with no tumor in specimen.



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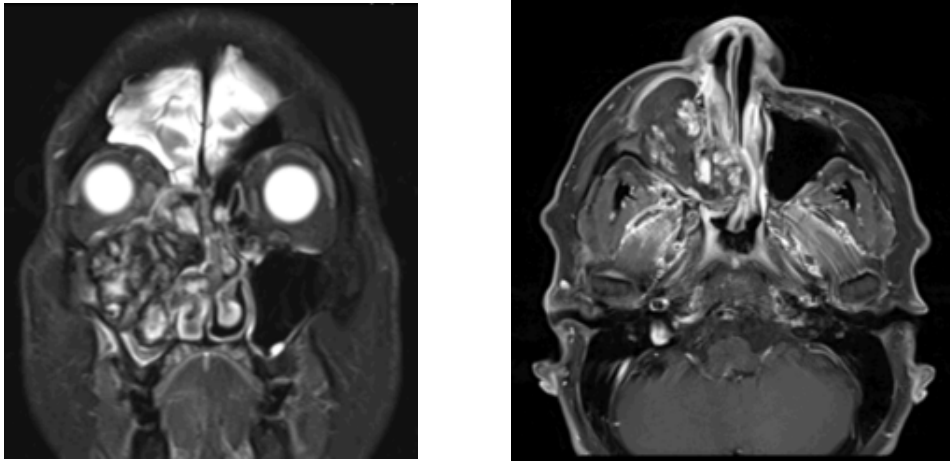


Figure 2a and 2b - MRI of the sinuses

CLINICAL SIGNS

Organized hematomas of the maxillary sinus are rare lesions with just over 100 cases reported in the literature. The predominant presentation is related to mass effect causing symptoms of nasal obstruction or rhinorrhea that may be purulent if superimposed infection is present. Seventy percent of patients report repeated epistaxis. Depending on the size of the lesion, bone erosion or expansion may be present causing signs of facial swelling, proptosis, and visual findings. A noncontrast CT scan is the initial imaging modality of choice and will reveal an expansile mass within the maxillary sinus with possible bony expansion or erosion. There may also be extension to the orbit or soft tissue overlying the maxilla. If an organized hematoma is suspected, an angiogram may be performed to identify and possibly embolize the feeding vessel.

TREATMENT

Surgical resection is the treatment of choice with an endoscopic or Caldwell-Luc assisted approach. The lesion tends to be well encapsulated, thus complete surgical resection is feasible. Frozen section should be sent during the time of the procedure to rule out the possibility of an underlying neoplasm. In our patient, the lesion was exposed endoscopically within the maxillary sinus as the initial step (Figure 1a).

CONCLUSION

A high index of suspicion should be present to diagnose an organized hematoma of the maxillary sinus. Significant blood loss is a risk with biopsy and this should be understood and appreciated prior to attempting an office procedure. Surgical resection is the treatment of choice and many times may be done through an endoscopic approach. Arterial feeders when present may be embolized; however, this is not mandatory before attempting resection.



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