12 y/o boy who presented with nasal congestion and recurrent epistaxis

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Juvenile Angiofibroma
Enhancing nasal cavity soft tissue mass

Expanded pterygopalatine fossa and anterior bowing of maxillary sinus posterior wall
Avid enhancement with internal flow voids
Avid enhancement with internal flow voids

Heterogenous signal intensity on T2
Juvenile Angiofibroma

- Benign fibrovascular tumor arising in the posterior nasal cavity / sphenopalatine foramen, frequently extending throughout the nasal cavity and into the nasopharynx. 90% of JAFs involve the pterygopalatine fossa.
- Tumor of adolescents and young adults, with peak age of 14-17 and almost exclusively male.
- Patients present with symptoms related to nasal obstruction and recurrent epistaxis
  - Sinusitis, anosmia, middle ear effusions
Juvenile Angiofibroma

• Imaging findings
  – CT: Avidly enhancing soft tissue mass within nasal cavity and nasopharynx. Bony remodeling and erosion is common with anterior bowing of posterior wall of maxillary sinus and expansion of pterygopalatine fossa commonly seen.
  – MR: Heterogenous on T1 and T2 weighted images. Avid, prominent enhancement on post contrast images with multiple flow voids representing tumor vessels.

• Arterial supply is usually ECA branches and is very amenable to embolization
  – Sphenopalatine and accessory meningeal arteries arising from internal maxillary artery
  – Ascending pharyngeal artery
References
