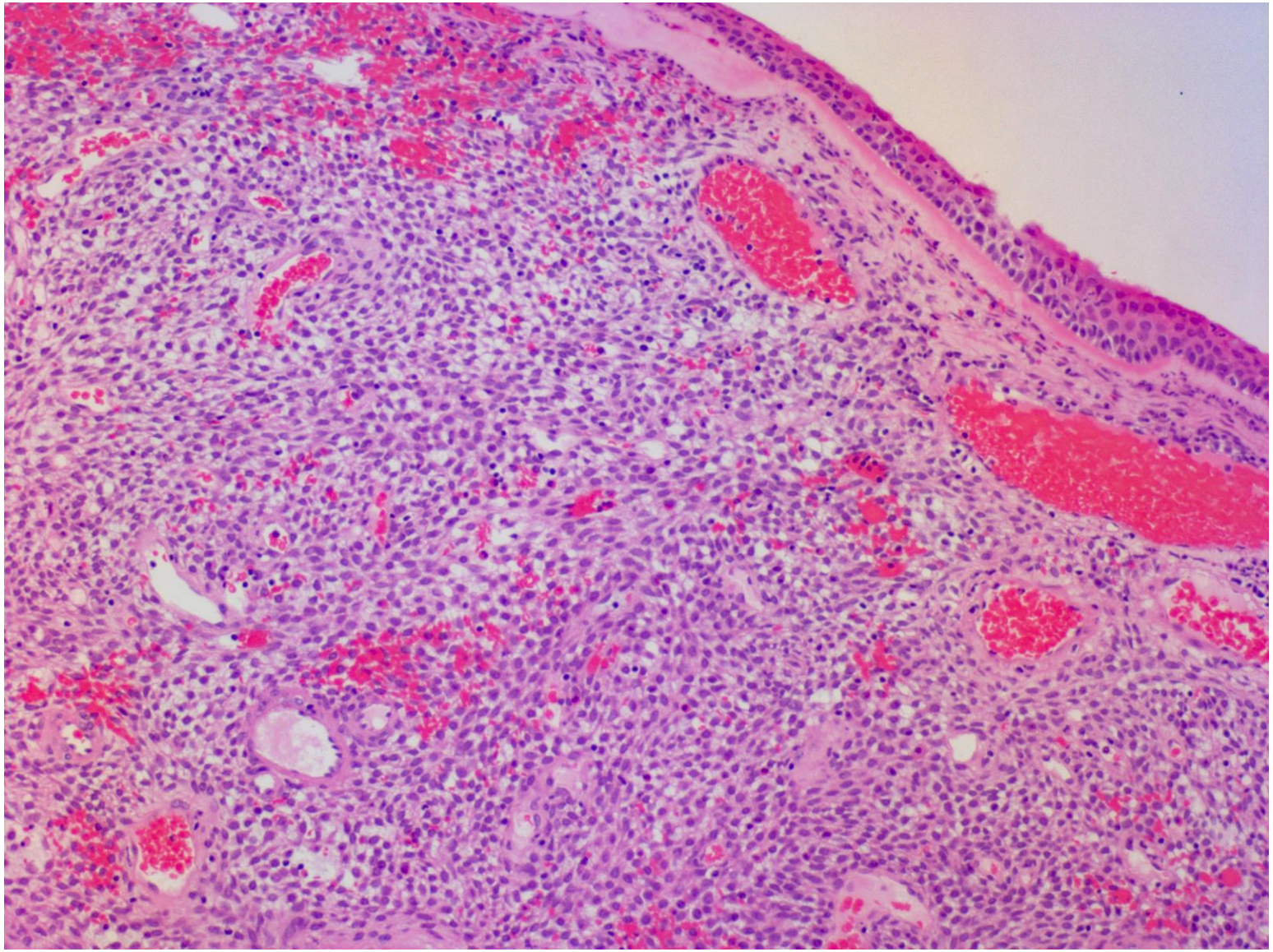
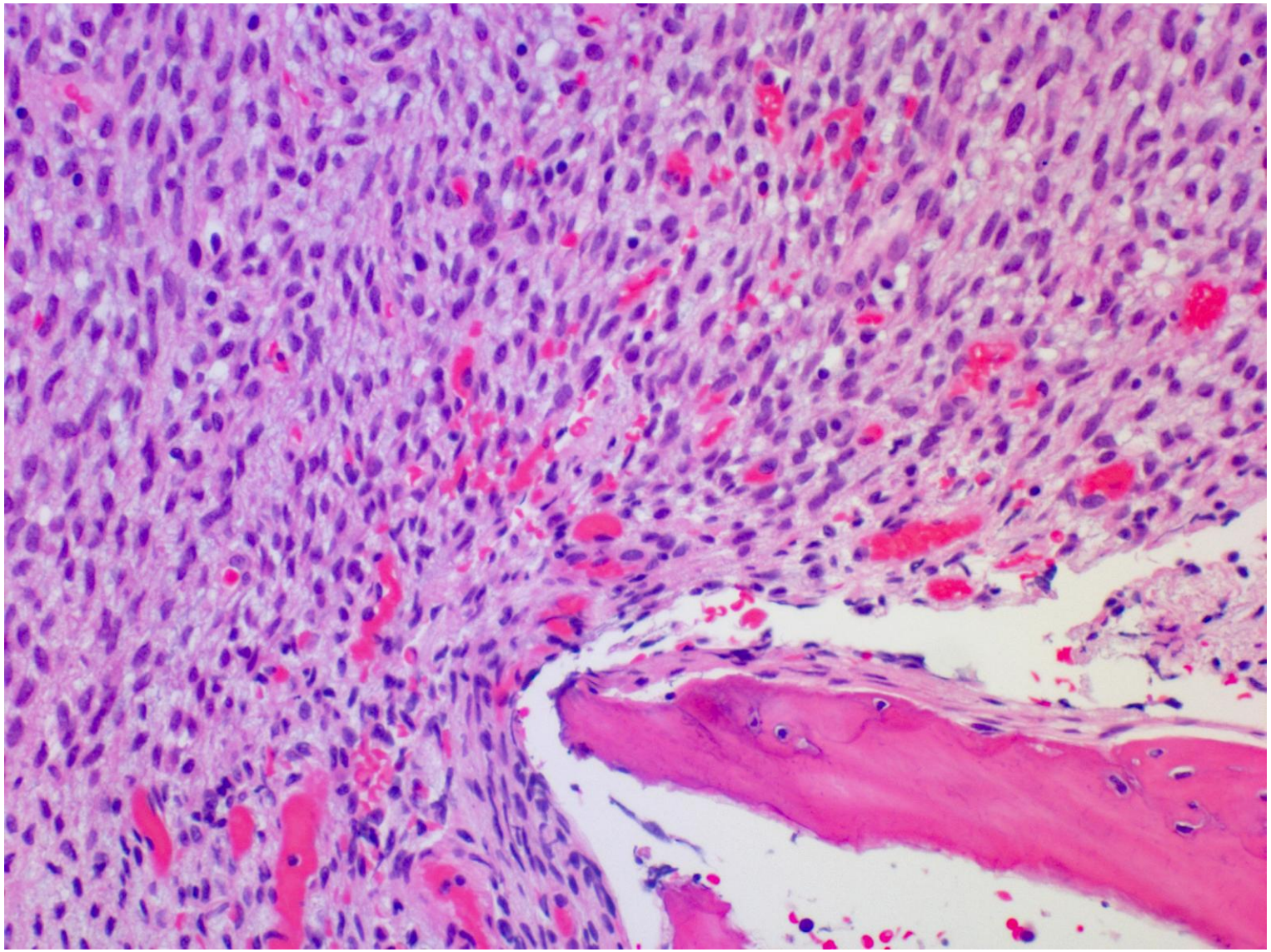
Hemangiopericytoma of the nasal cavity

Classical so-called hemangiopericytomas are now categorized mostly as solitary fibrous tumor. Genuine hemangiopericytoma derived from Zimmerman's capillary pericytes is actually limited to occur in the sinonasal cavity, particularly in the ethmoid and sphenoid sinus. Due to the microscopic similarity to glomus tumor, the term glomangiopericytoma is also used. The tumor cells express vimentin and SMA. Factor XIIIa and histocompatibility antigen HLA-DR may also be positive. CD34 is negative. The recurrence rate is high, because of the difficulty in the complete surgical resection.

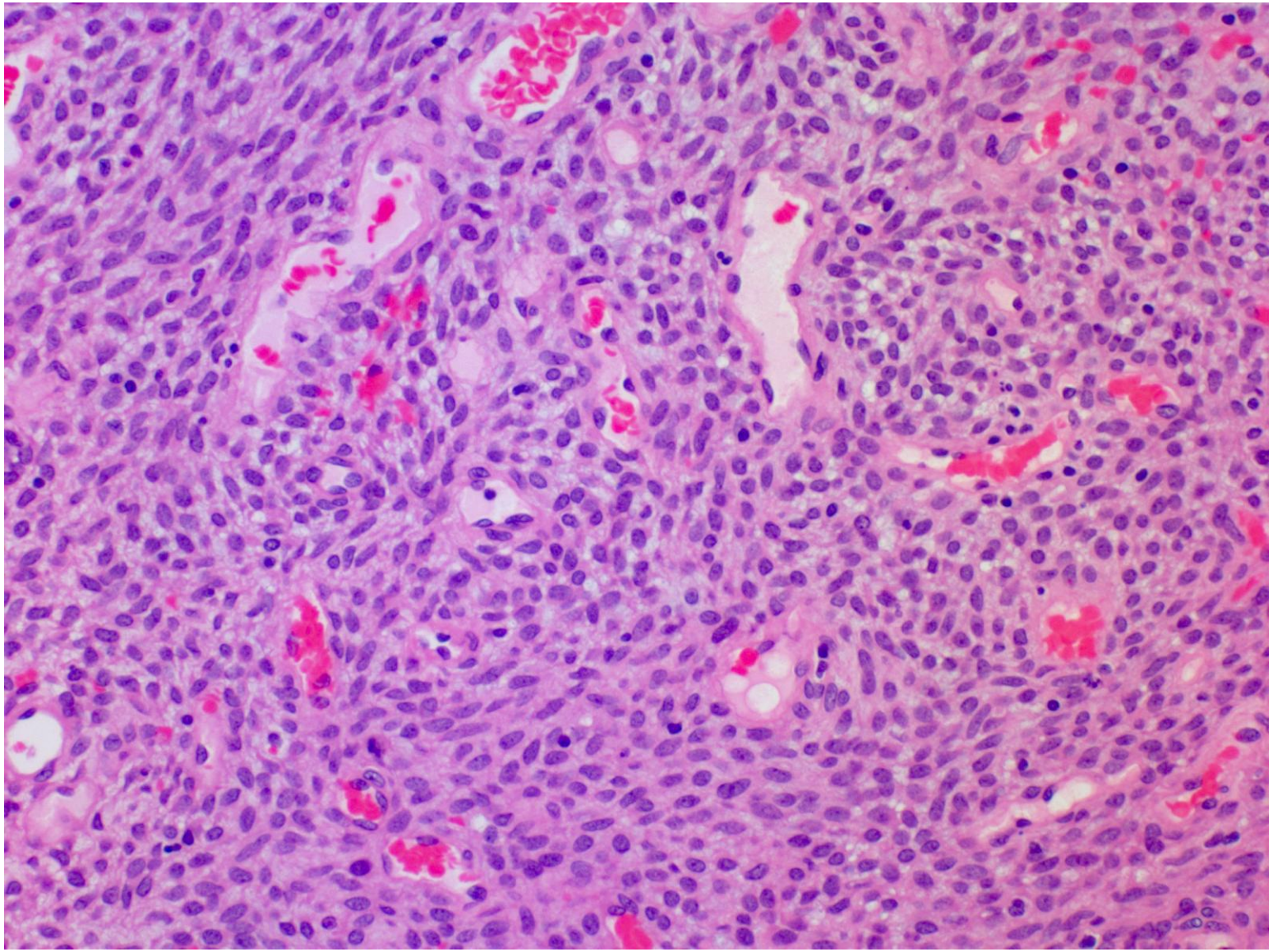
Ref.: Reiner SA, et al. Hemangiopericytoma of the nasal cavity. Rhinology 1990; 28(2): 129-136. PMID: 2201081



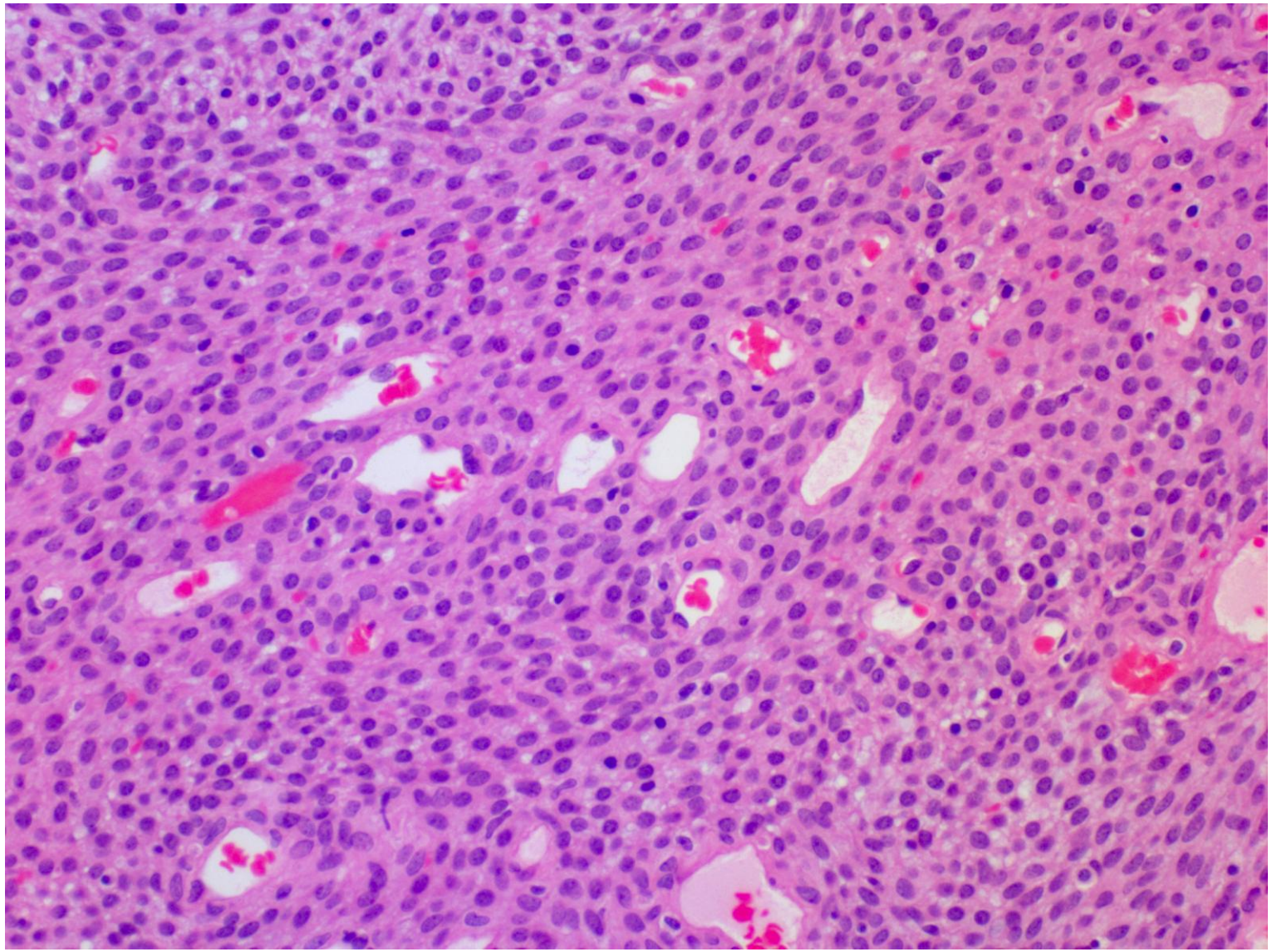
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient.
A demarcated tumor is seen just beneath the ciliated nasal mucosa.
Hemangiopericytomatous growth is discerned (H&E-1).



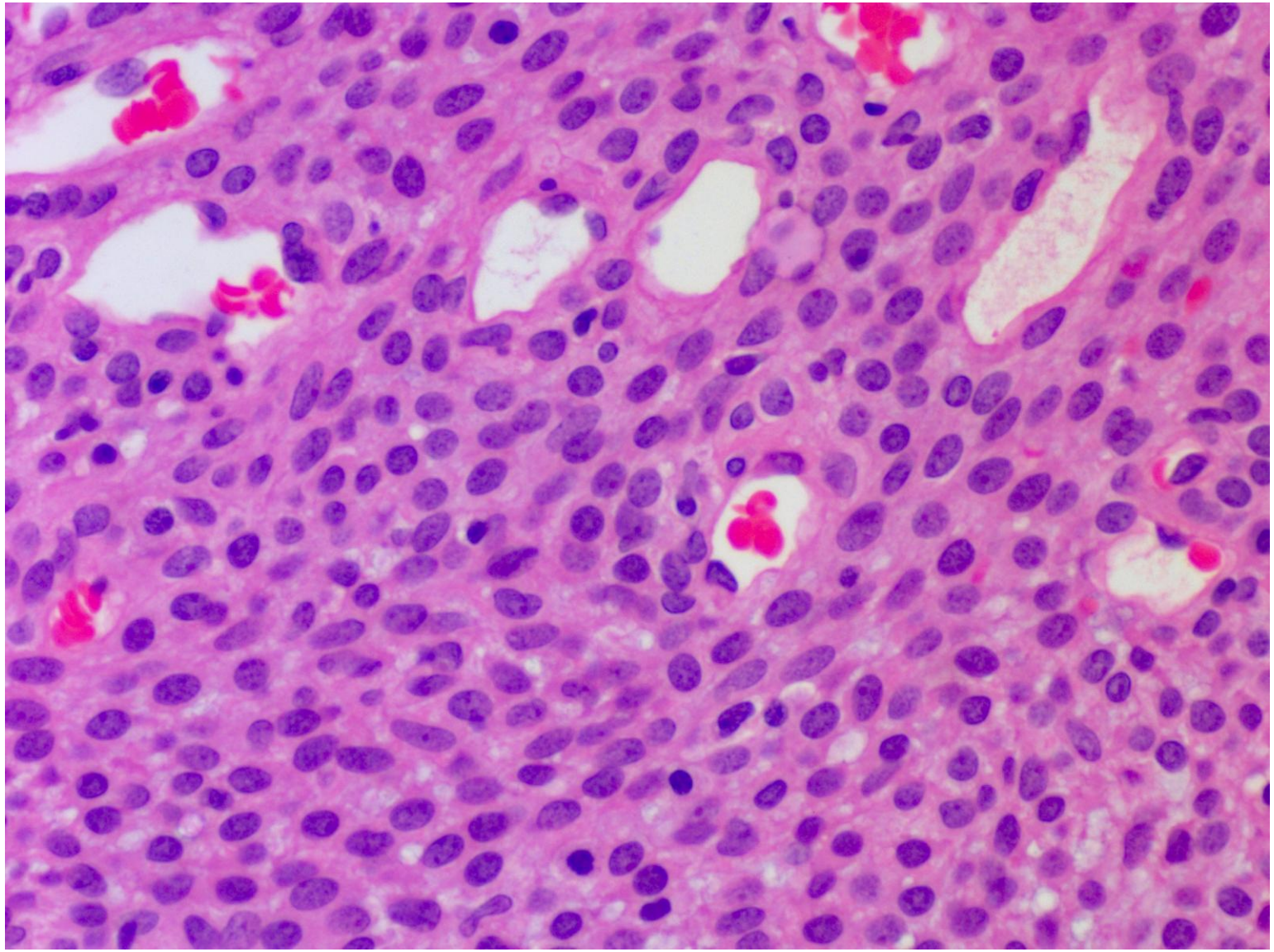
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient.
The hemangiopericytomatous growth is around the nasal bone (H&E-2).



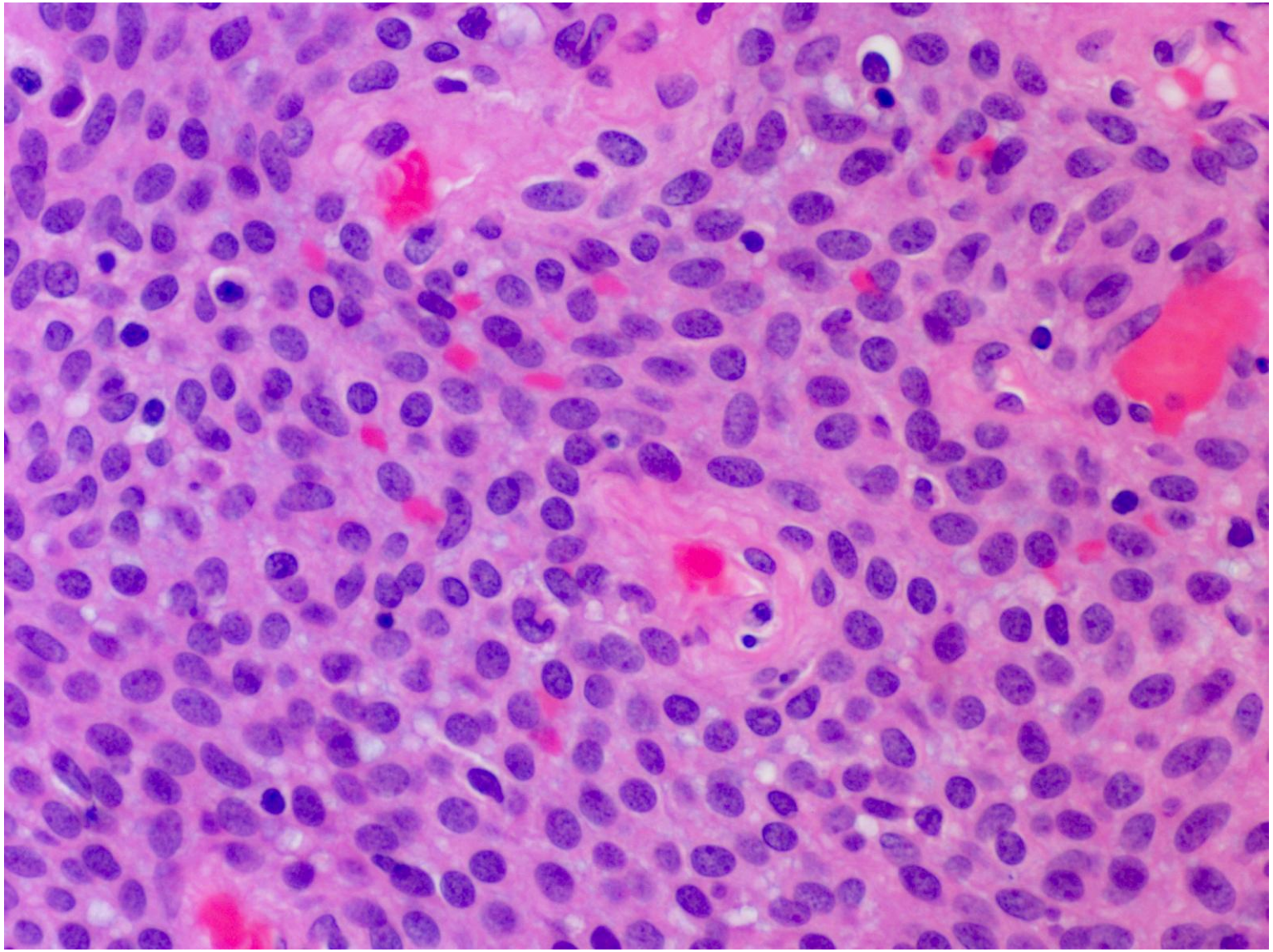
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Monomorphous tumor cells grow around the vascular lumina, somewhat resembling glomus tumor. Neither nuclear atypia nor mitosis is discerned (H&E-3).



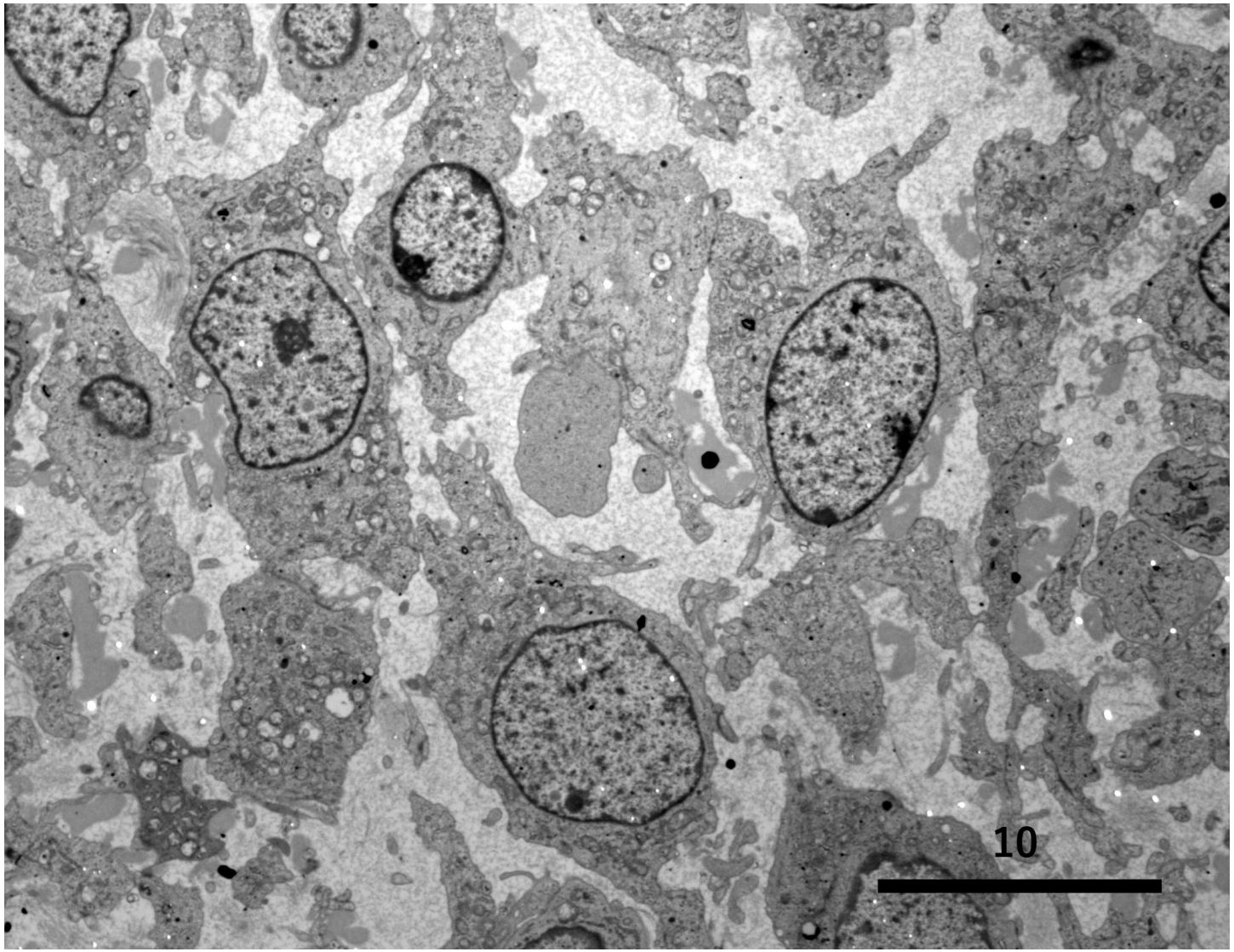
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Monomorphous tumor cells grow around the vascular lumina, somewhat resembling glomus tumor. Neither nuclear atypia nor mitosis is discerned (H&E-4).



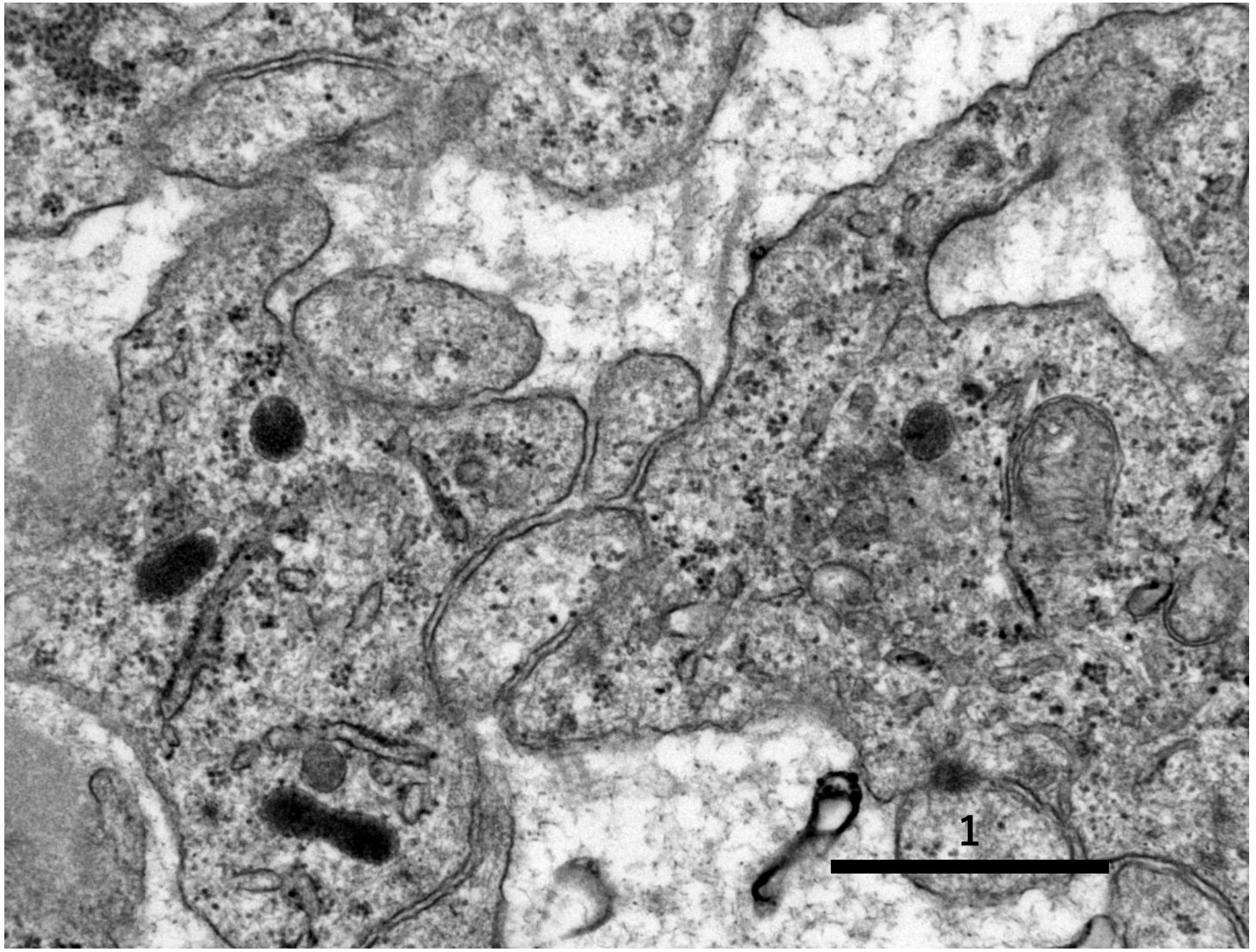
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Monomorphous tumor cells grow around the vascular lumina, somewhat resembling glomus tumor. Neither nuclear atypia nor mitosis is discerned (H&E-5).



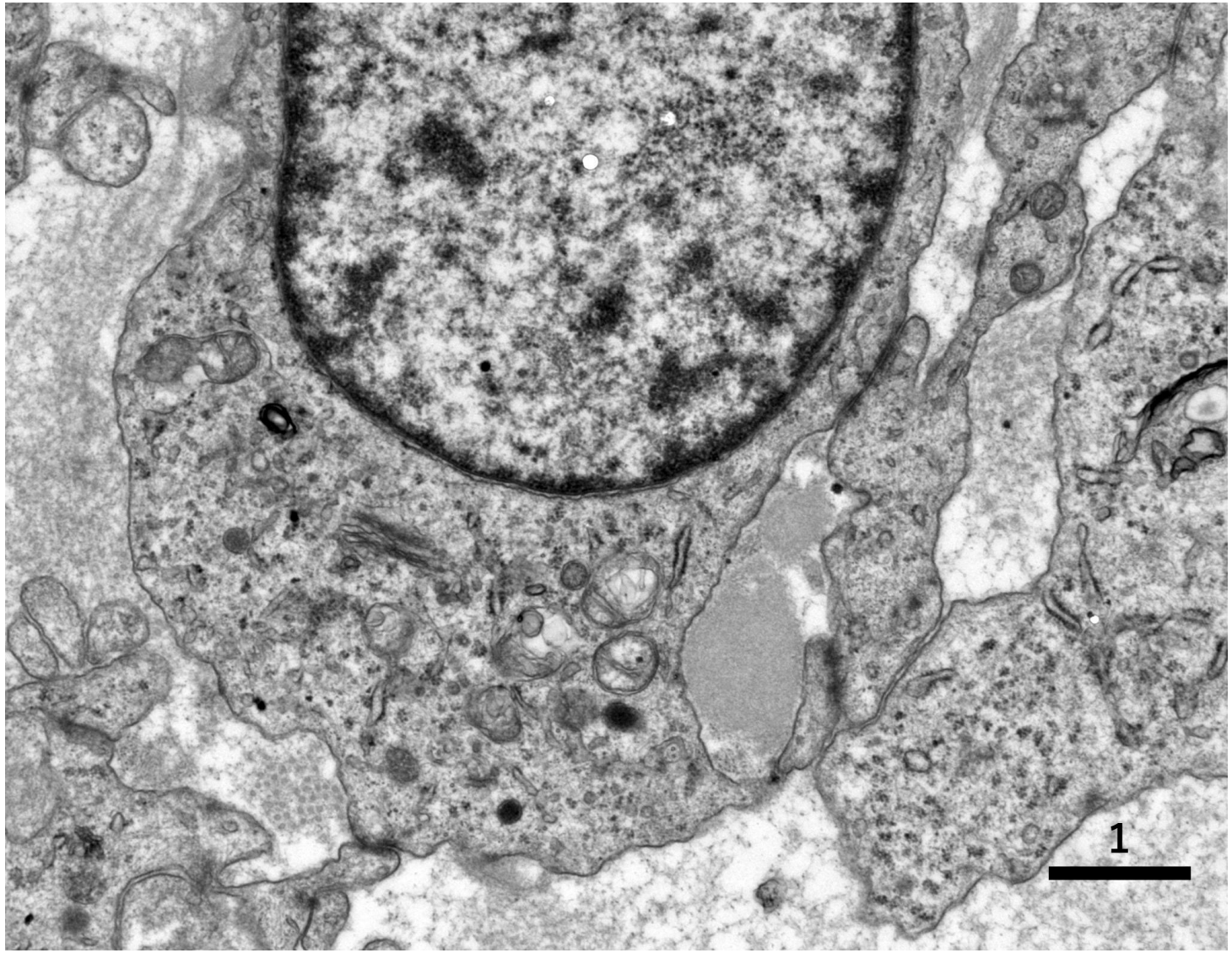
Hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Monomorphous tumor cells grow around the vascular lumina, somewhat resembling glomus tumor. Neither nuclear atypia nor mitosis is discerned (H&E-6).



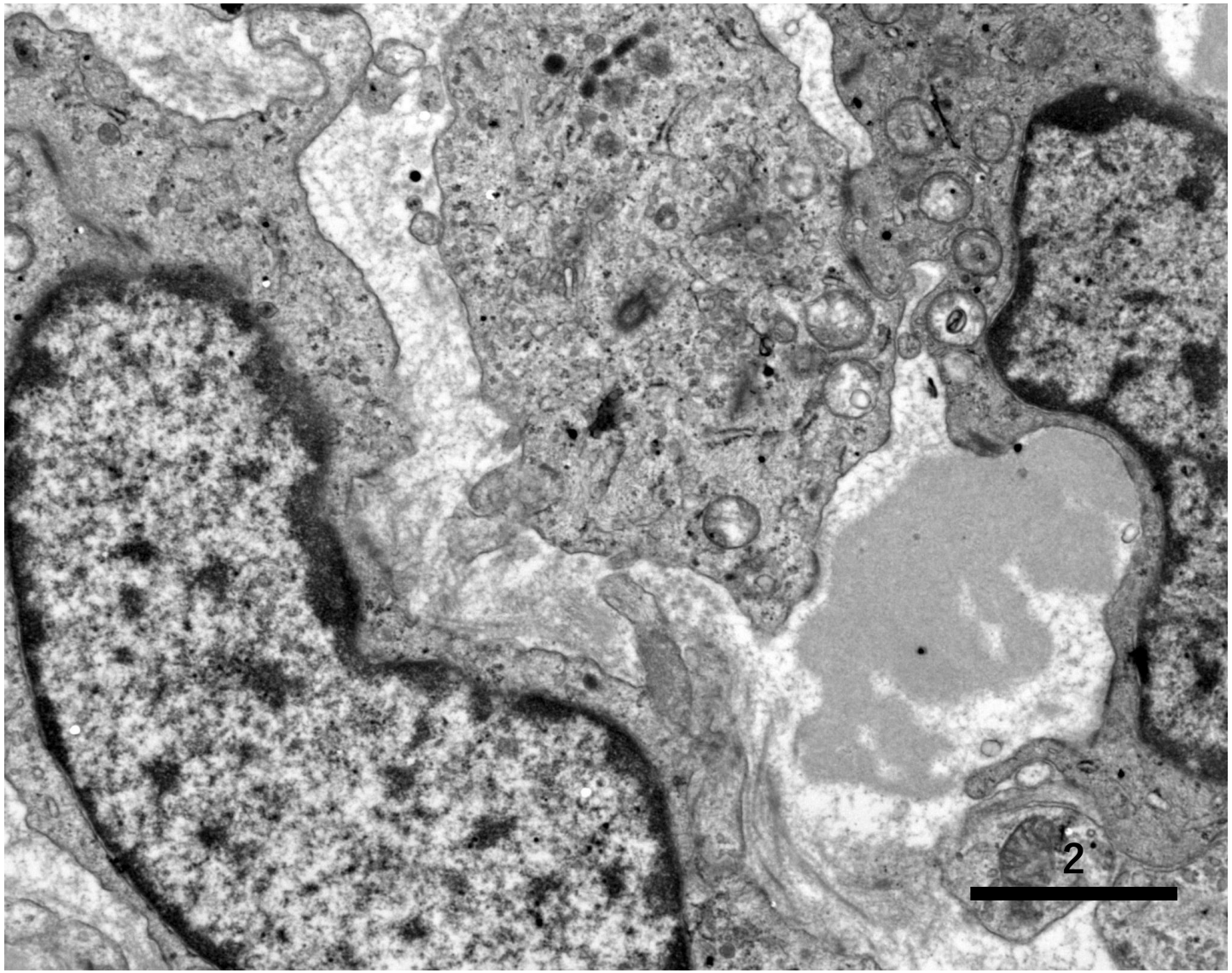
Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Monomorphous tumor cells accompany developed cellular processes to connect the respective tumor cells. The nuclei are round and bland (TEM-1).



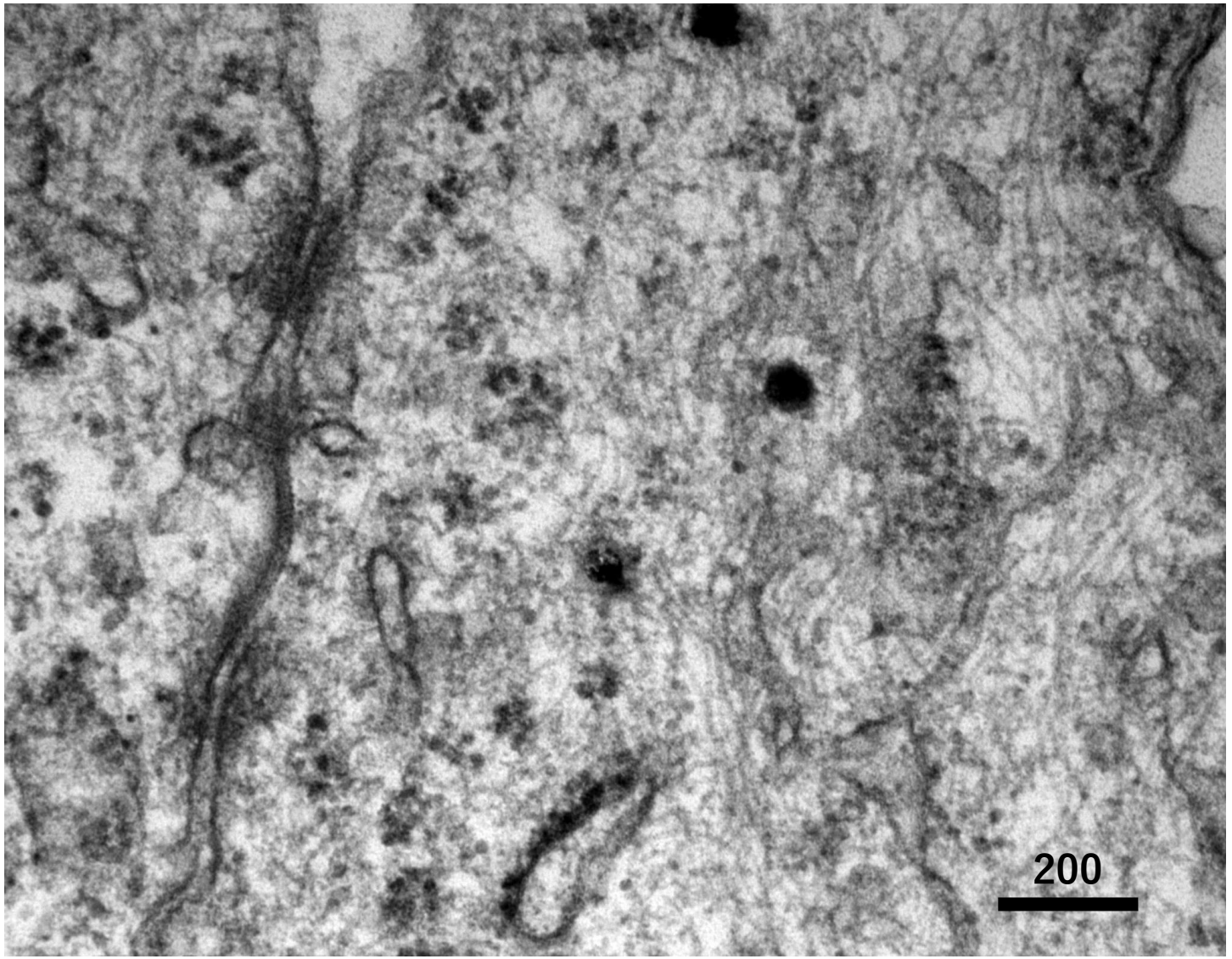
Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. The cellular processes are interdigitated. Electron-dense lysosomal granules and small vesicles are dispersed (TEM-2).



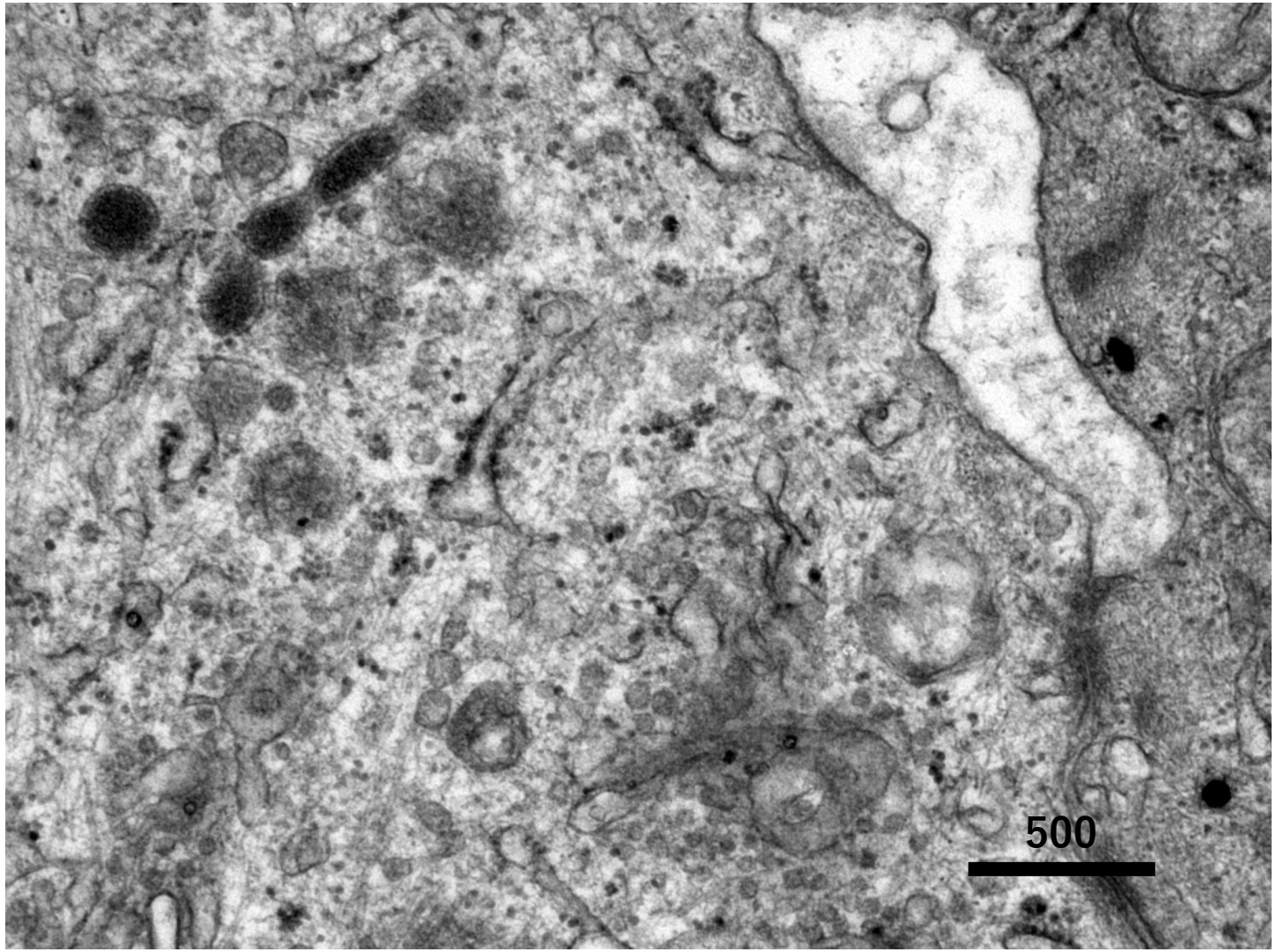
Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Pericellular accumulation of myxoid mucosubstances is evident. Global clustering of the mucosubstances is focally observed (TEM-3).



Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. Pericellular accumulation of myxoid mucosubstances is evident. Global clustering of the mucosubstances is focally observed (TEM-4).



Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. The cytoplasm is rich in intermediate filaments. Intercellular formation of desmosomes and tight junctions is evident (TEM-5).



Ultrastructure of hemangiopericytoma of the nasal cavity seen in a 63 y-o male patient. The cytoplasm is rich in intermediate filaments. Electron-dense lysosomal granules are observed. Intercellular formation of desmosomes is evident (TEM-6).