SCHWANNOMA
(NEURILEMMOMA, ACOUSTIC NEUROMA)

Schwann cells form the neurilemma around the axon in peripheral nerves. Schwannoma is a benign tumor, well-circumscribed, round or lobulated, and found particularly in the internal acoustic meatus related to the vestibular nerve, and in the lateral neck where it may be attached to the nerve of origin and cause a fusiform enlargement of the nerve.

Histologically, two types of tissue are seen: 1) Antoni A tissue—compact groups of spindle cells with nuclei that tend to show palisading; 2) Antoni B tissue—loose reticular tissue, sometimes cystic. A portion of the tumor usually has cells with an interlacing, fascicular pattern while in other areas there is palisading. The walls of blood vessels, often large, may show a characteristic hyalinization. Also of note are Verocay bodies—whorled formations of palisading nuclei arranged in rows about the periphery of eosinophilic cytoplasm.

Nuclei of the Schwannoma are elongated, curved, and show whorling or palisading. They are vesicular to hyperchromatic.

Schwannoma, maxillary sinus. Spindle cells show interlacing pattern and palisading of nuclei.
Schwannoma, maxillary sinus, same tumor as upper left demonstrating whorling pattern (arrows) with elongated, twisted, vesicular to hyperchromatic nuclei. Cells have indistinct borders.

Schwannoma, acoustic, showing Verocay bodies—nuclear palisading about periphery of eosinophilic acellular cytoplasm (arrows).
Schwannoma, acoustic; Antoni A and B areas with compact spindle cells in A area (triangles) and loose hypocellular tissue in B area (double arrows).

Schwannoma, larynx. Antoni A and B areas well demonstrated and there are Verocay bodies.
Schwannoma, larynx, showing Antoni A (arrows) and Antoni B areas (triangle) and the large vessels sometimes seen in schwannoma.

Schwannoma, acoustic; hyalinization of vessel walls (large arrows) is a common finding. Surrounding tissue is Antoni A type. Tumor cells are twisted and elongated (small arrows).
Schwannoma, nasal septum. Palisading nuclei and Verocay bodies (arrows).