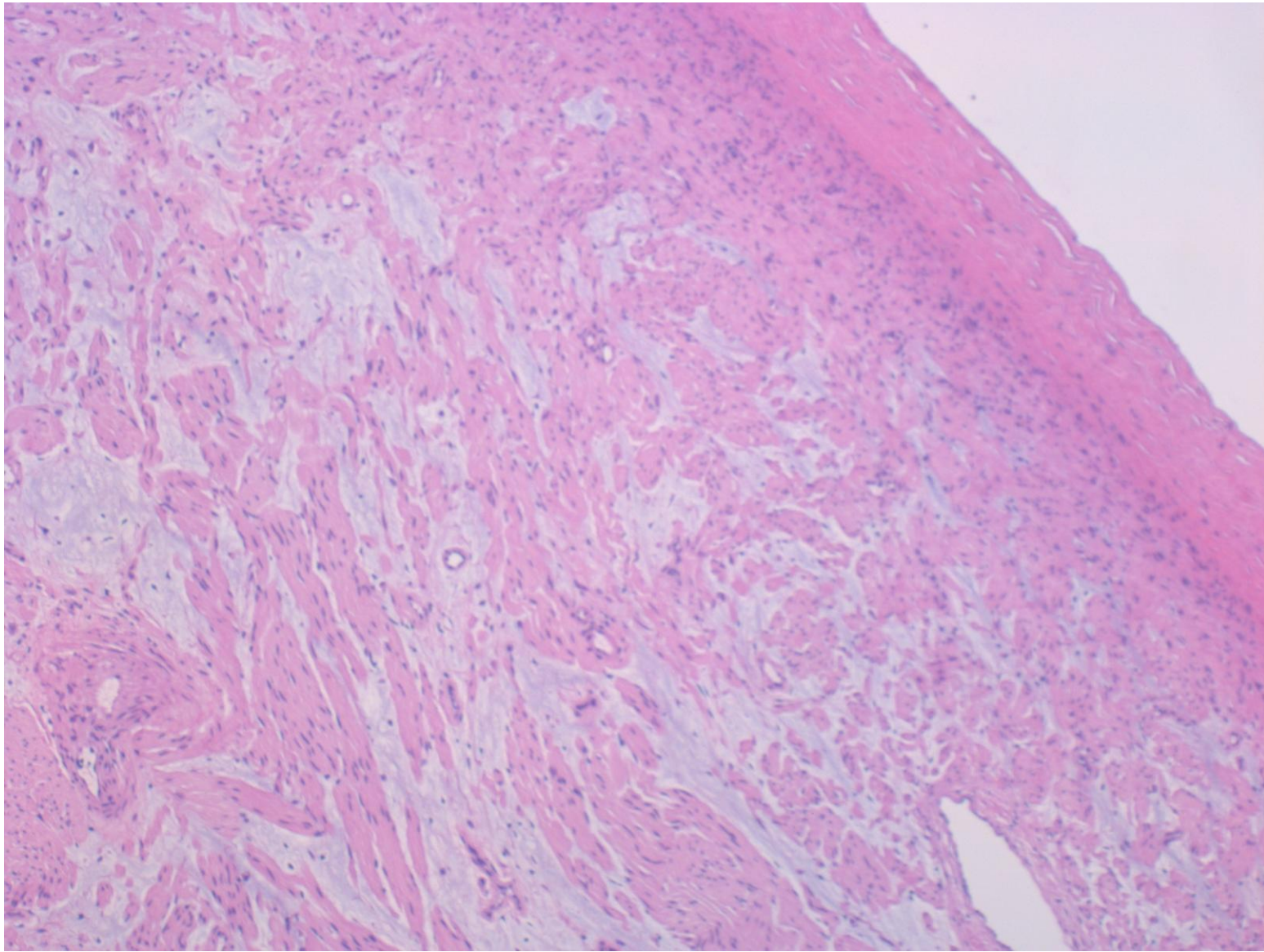


Ganglioneuroma.

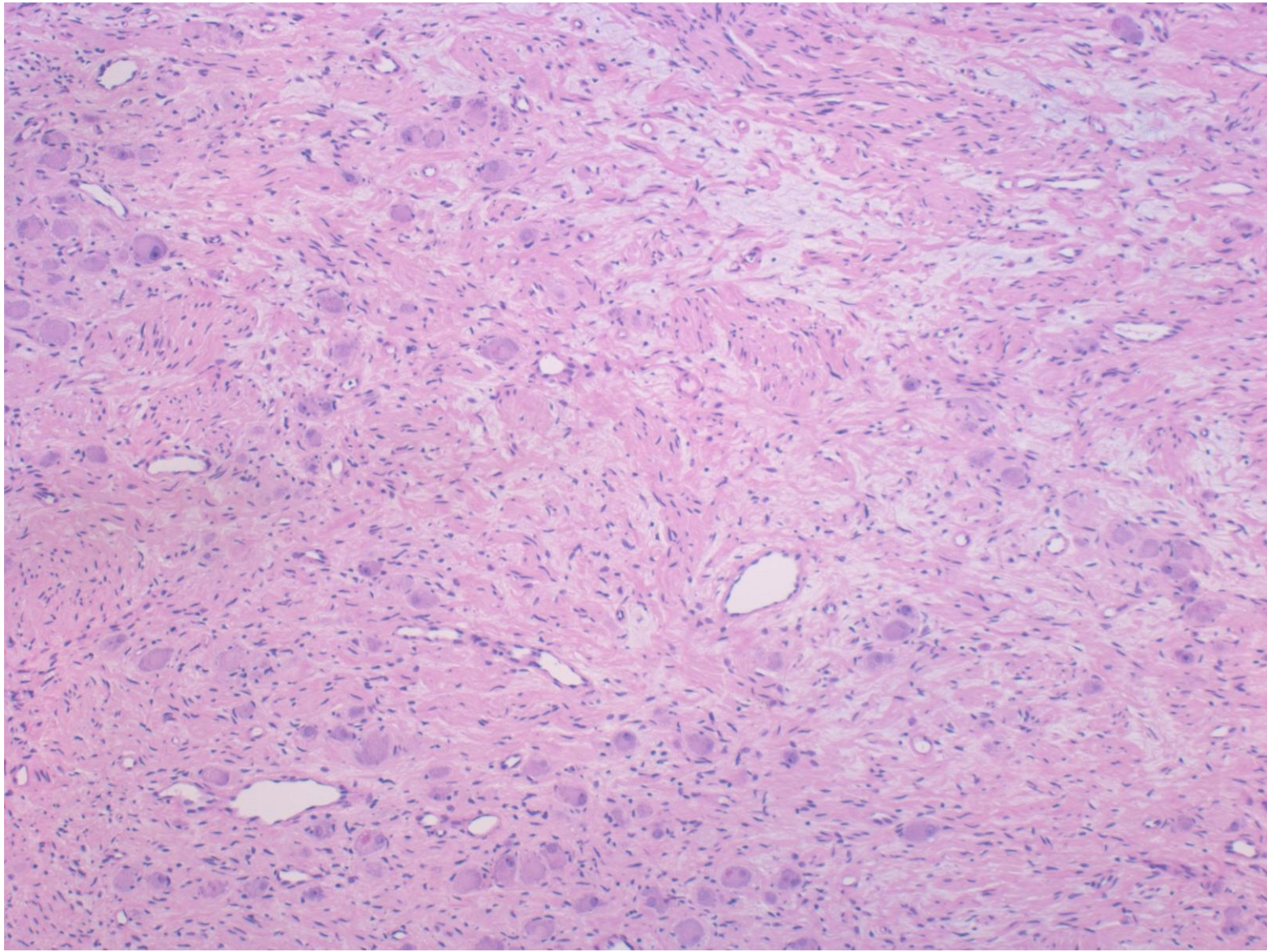
Ultrastructural study

Ganglioneuroma is a benign tumor originating from the neural crest, particularly the sympathetic nervous system. The tumor mainly affects adolescents and young adults, and its frequent localizations include the retromediastinum, retroperitoneum and adrenal glands. Usually, ganglioneuroma is asymptomatic and discovered as an incidentaloma. Co-incidence with neuroblastoma or pheochromocytoma/paraganglioma has been recorded, and catecholamine secretion may be associated. Ultrastructurally, the ganglion cells in the posterior mediastinal tumor seen in an 18 y-o female patient possessed neurosecretory-type granules, accompanying paraganglionic differentiation.

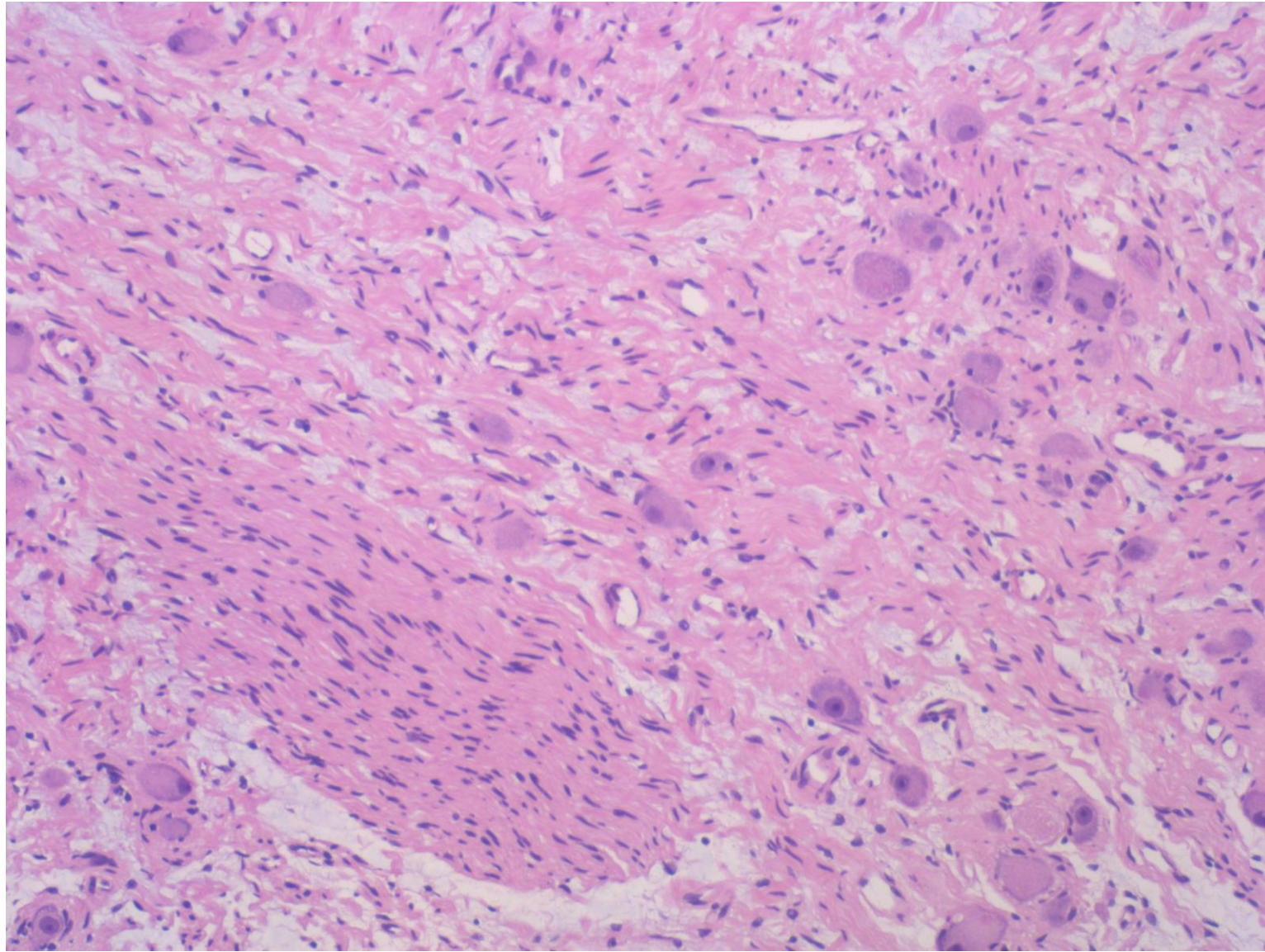
Ref.: Spinelli C, et al. Incidental ganglioneuromas: a presentation of 14 surgical cases and literature review. J Endocrinol Invest 2015; 38: 547-554. doi: 10.1007/s40618-014-0226-y



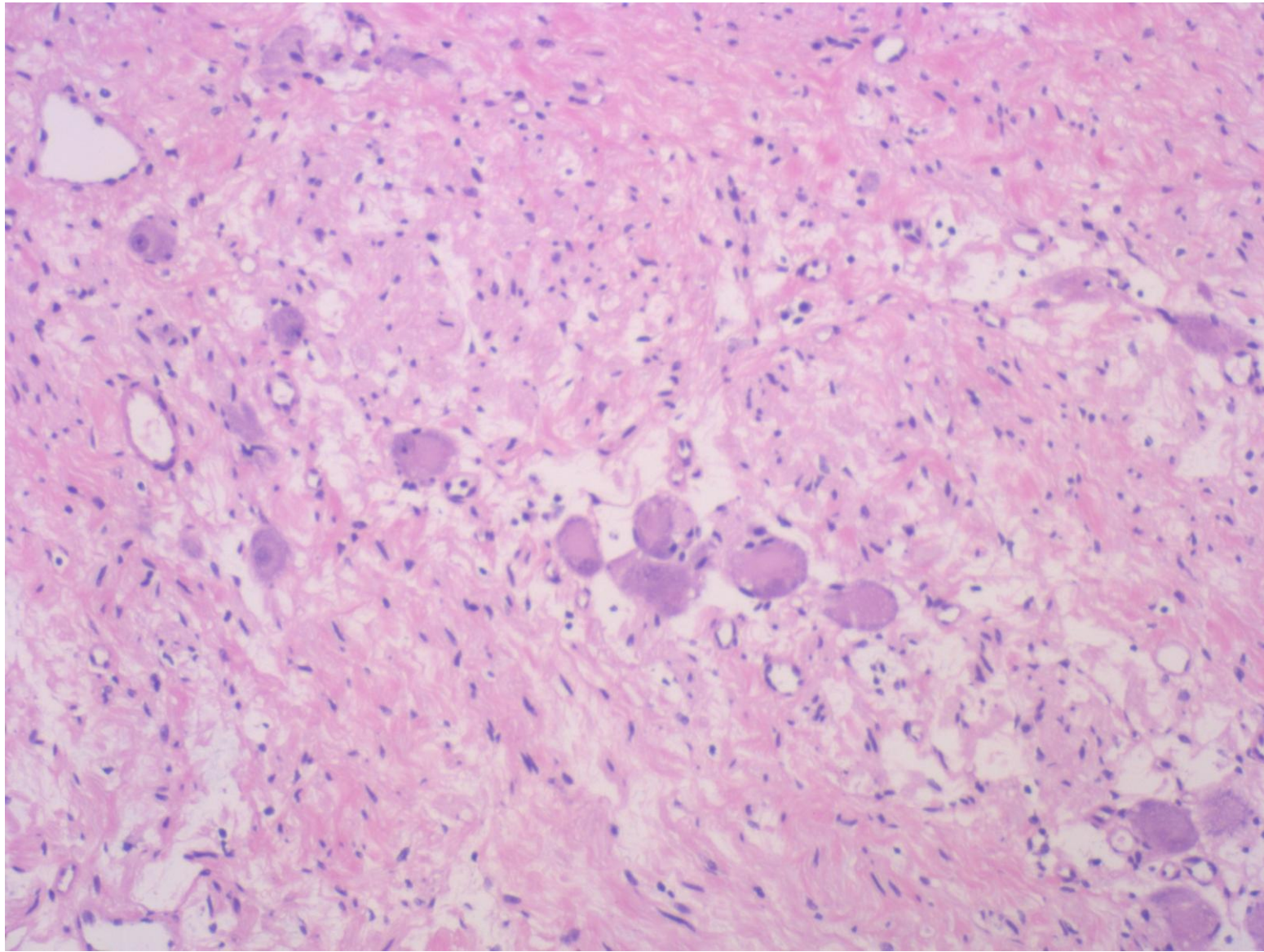
Ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. An encapsulated tumor microscopically consists of Schwann cell fascicles embedded in the myxoid stroma (H&E-1).



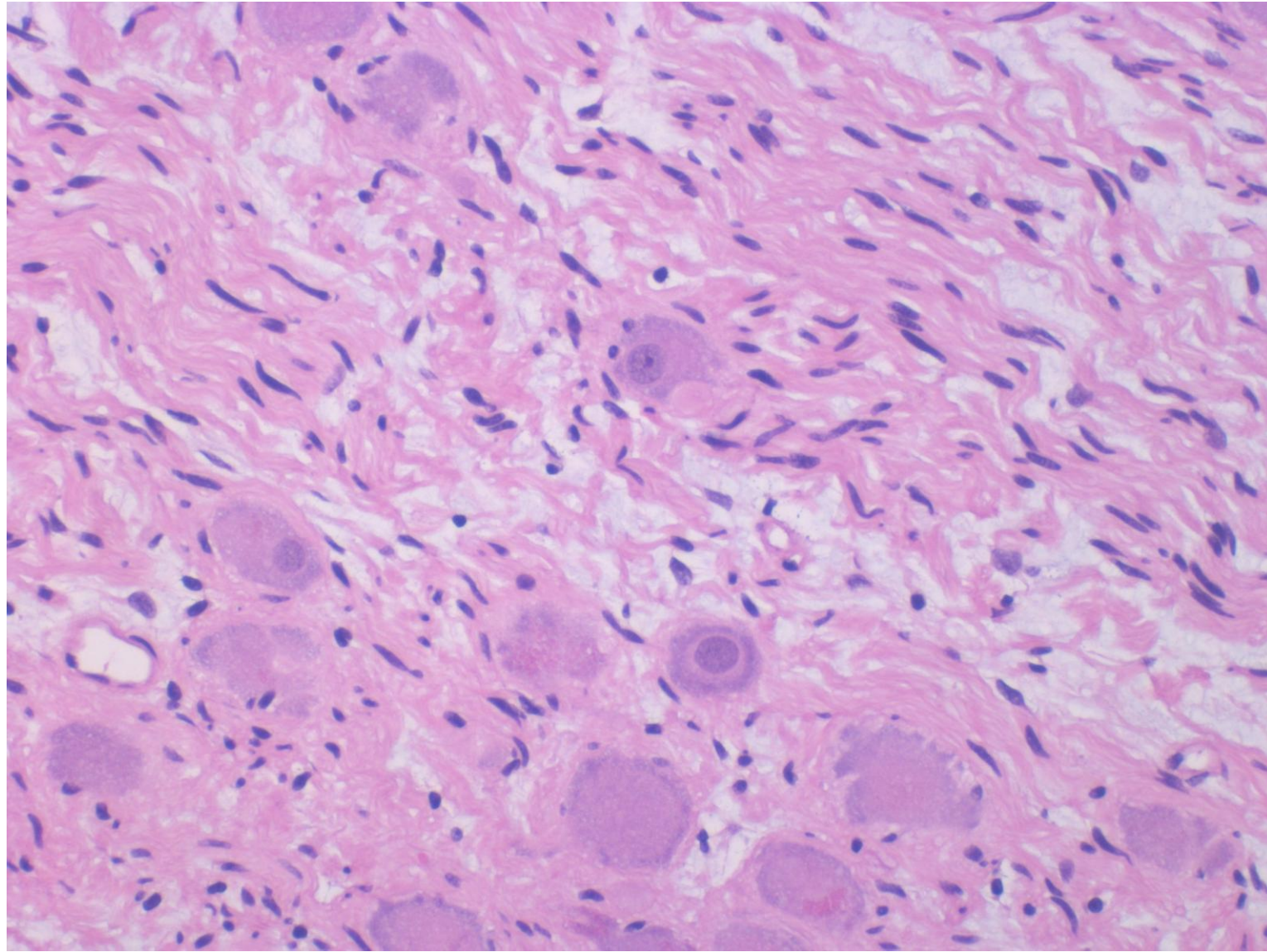
Ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. Mature ganglion cells are scattered in the background of Schwann cell growth in the myxoid stroma (H&E-2).



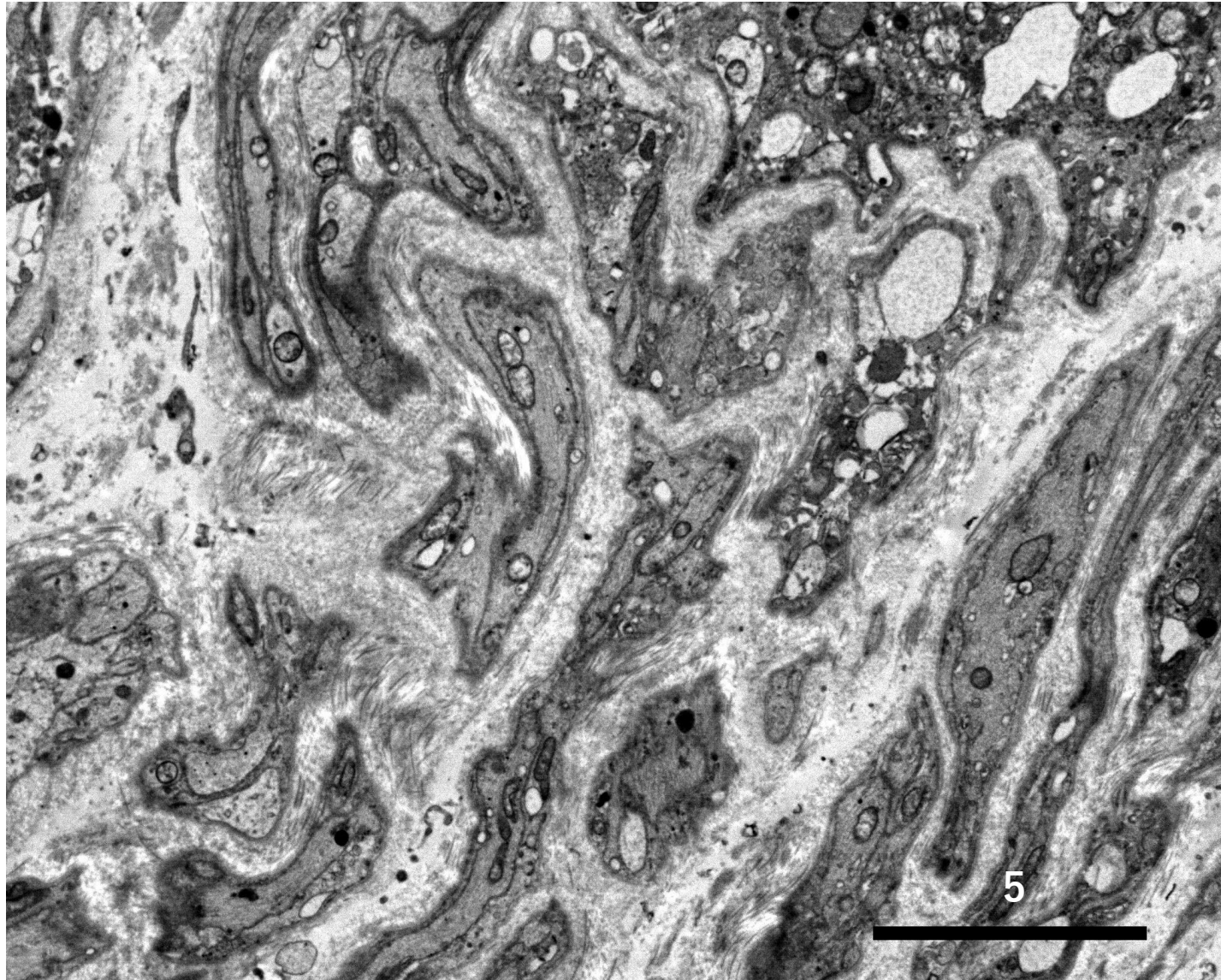
Ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. Mature ganglion cells are scattered in the background of Schwann cell growth in the myxoid stroma (H&E-3).



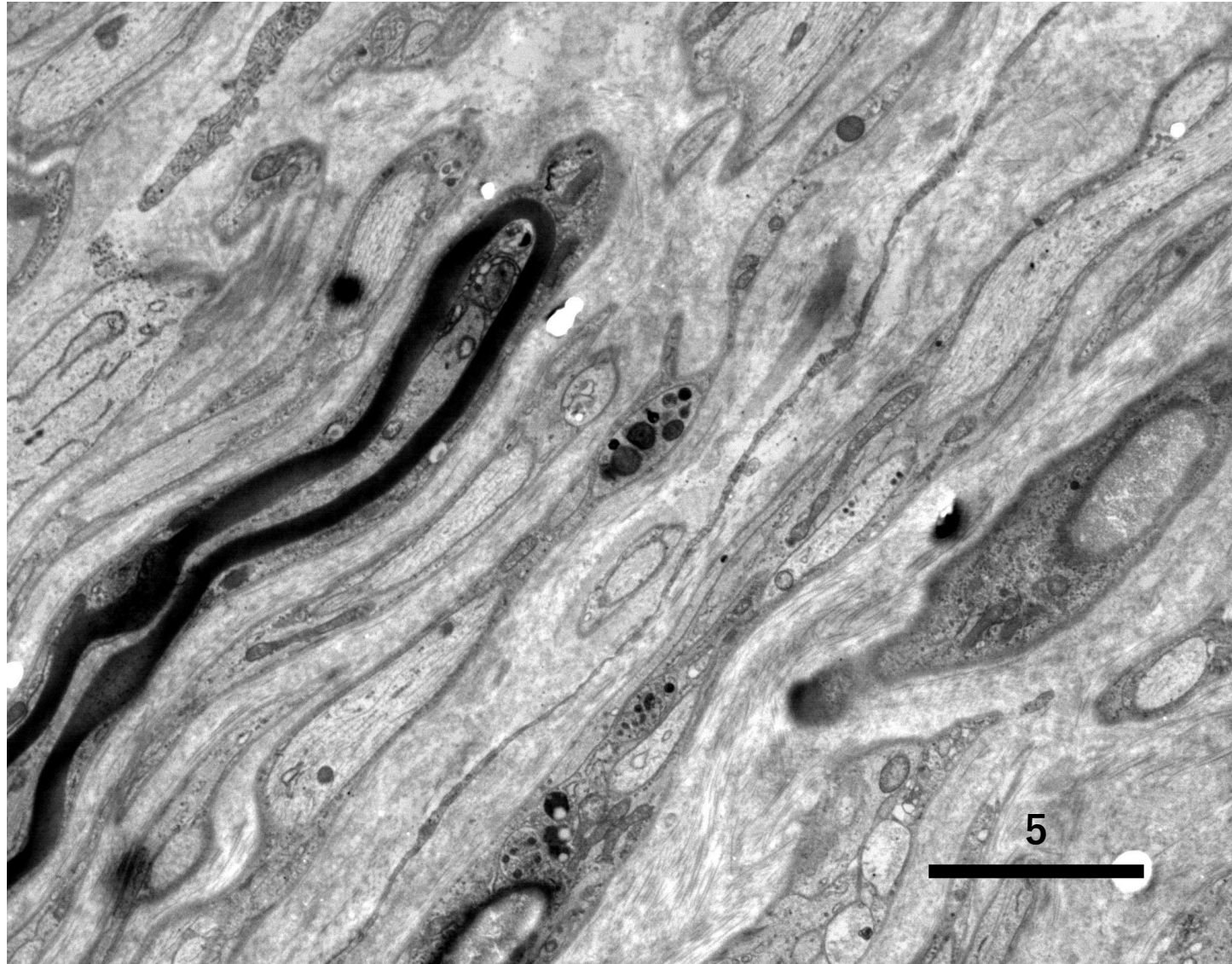
Ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. Mature ganglion cells are scattered in the background of Schwann cell growth in the myxoid stroma (H&E-4).



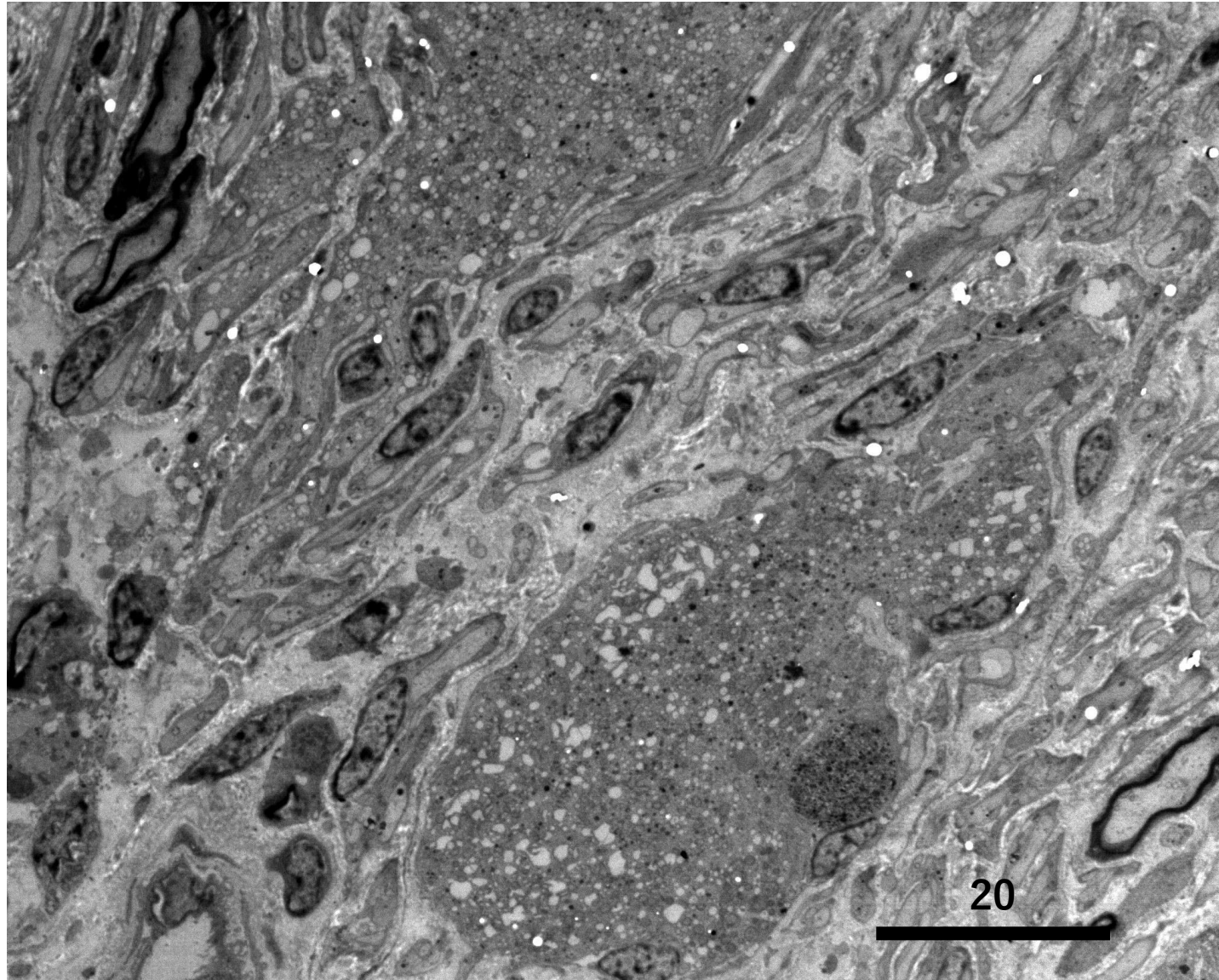
Ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. Mature ganglion cells are scattered in the background of Schwann cell growth in the myxoid stroma (H&E-5).



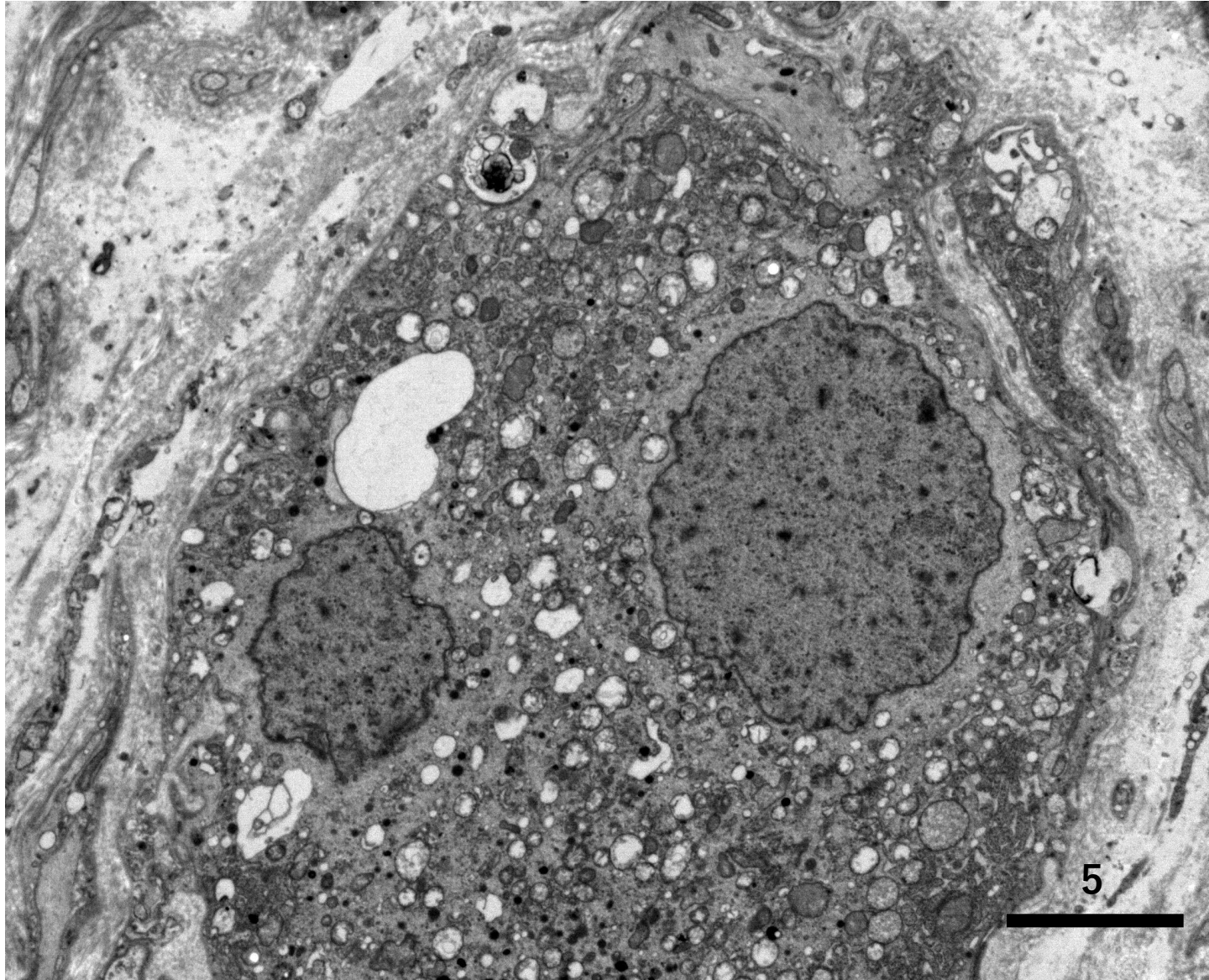
Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. The background Schwann cells occasionally engulf axons. Basal lamina formation is evident in the Schwann cells (EM-1).



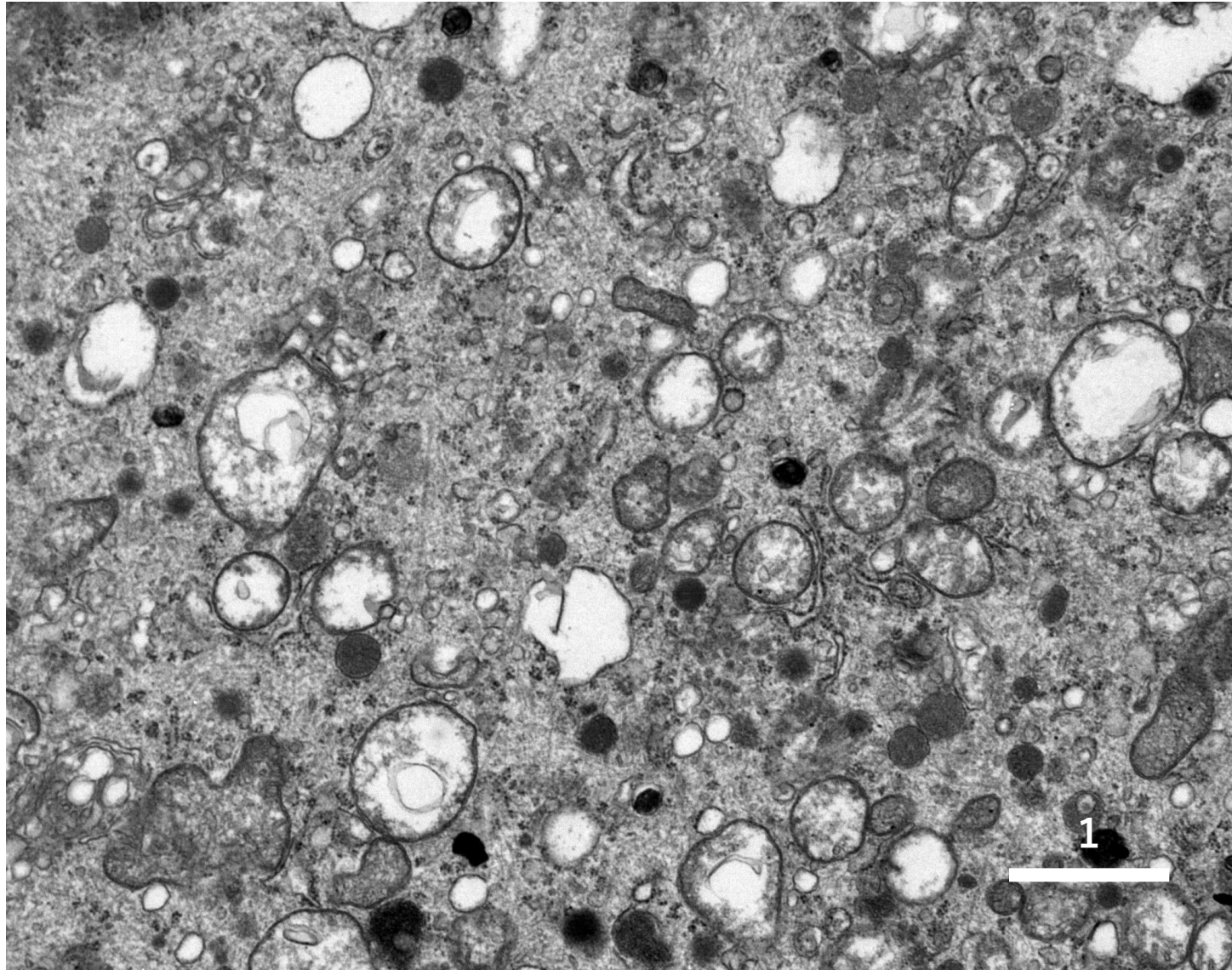
Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. The background Schwann cells occasionally engulf axons. Myelinated fibers are focally intermingled. Basal lamina formation is evident in the Schwann cells. (EM-2).



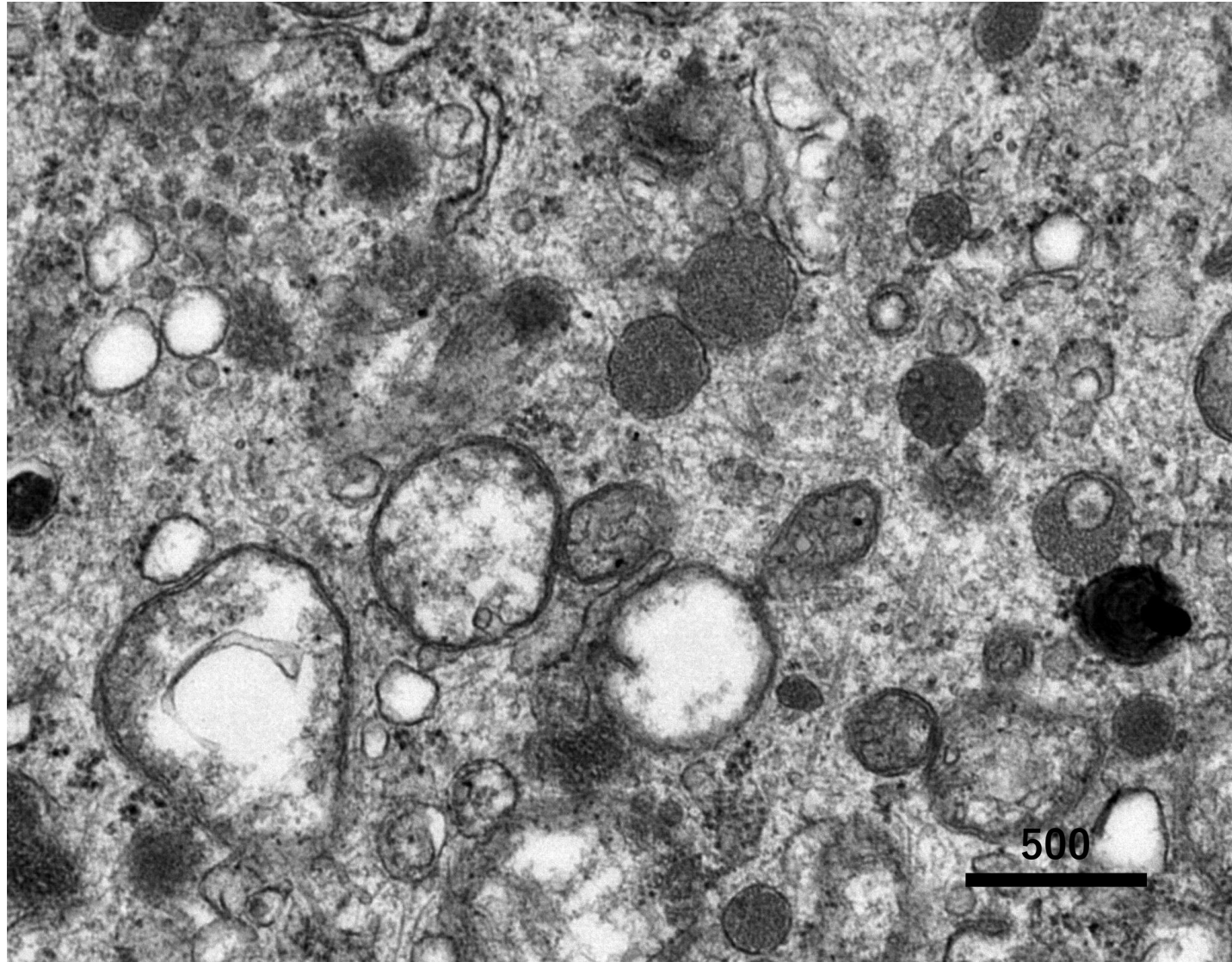
Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. Ganglion cells are seen in the background Schwann cells. The ganglion cells possess the plump cytoplasm rich in cellular organelles (EM-3).



Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. The large-sized ganglion cell has round nuclei and plump cytoplasm rich in mitochondria, vesicles and electron-dense neurosecretory granules (EM-4).



Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. In the plump cytoplasm of the ganglion cell, mitochondria, vesicles and electron-dense neurosecretory granules are observed (EM-5).



Ultrastructure of ganglioneuroma of the posterior mediastinum in an 18 y-o female patient. In the plump cytoplasm of the ganglion cell, mitochondria, vesicles and membrane-bound, electron-dense neurosecretory granules are observed. The granules measure from 180 to 340 nm (mean: 260 nm). Paraganglionic differentiation of the ganglion cells is evident (EM-6).