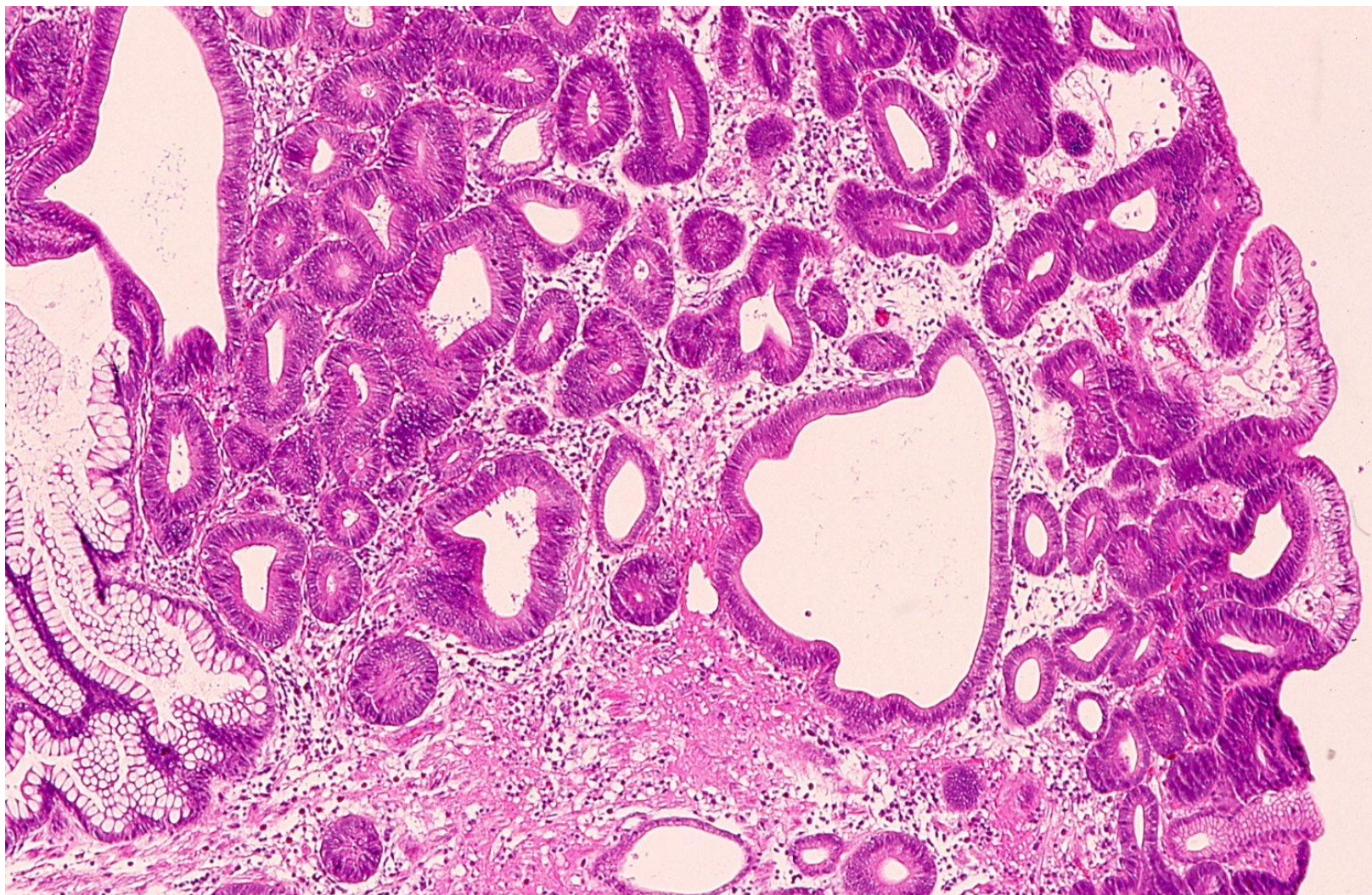


Gastric tubular adenoma with enterochromaffin cells and Paneth cells

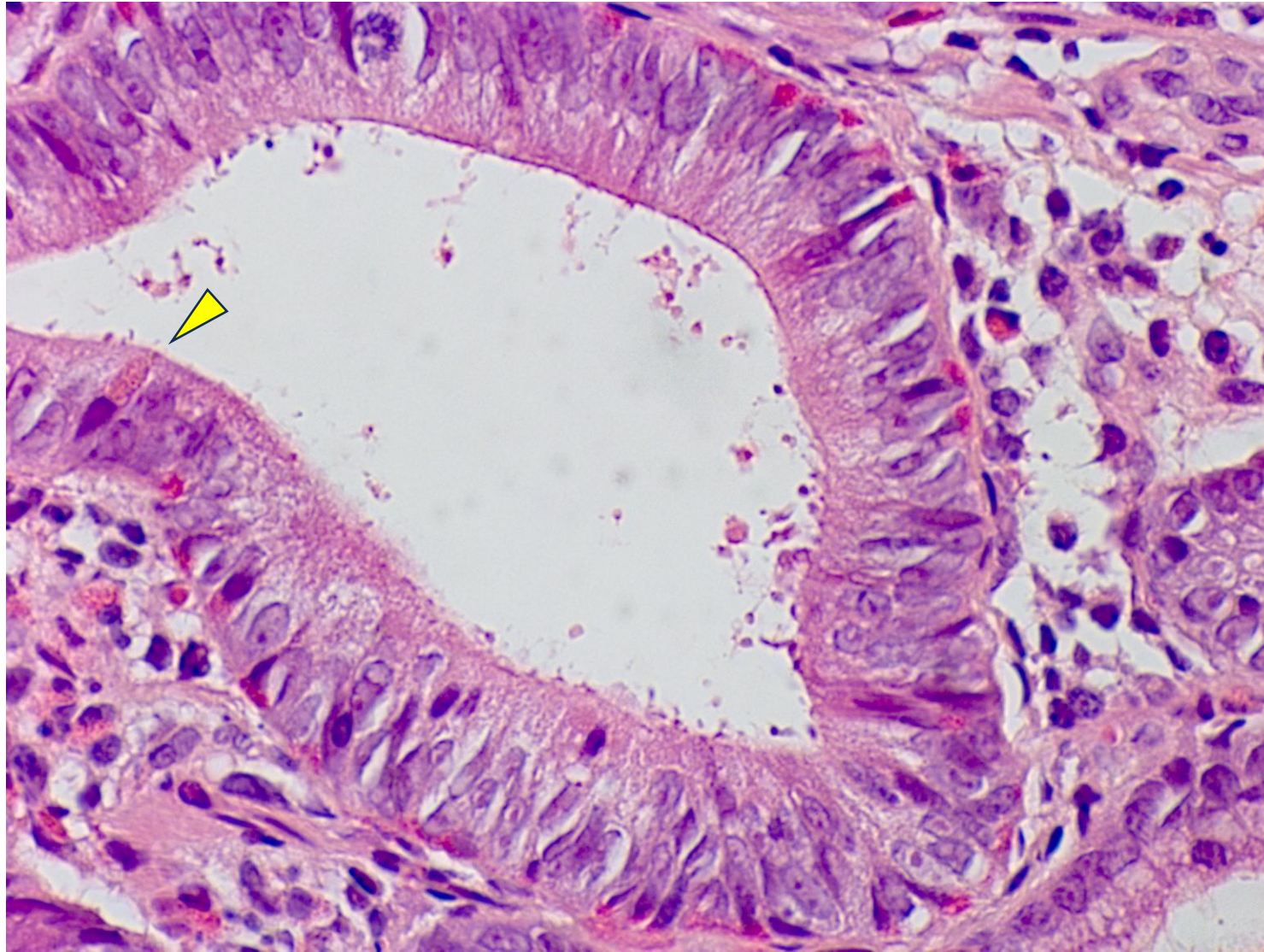
Gastric tubular adenoma may contain neuroendocrine cells, predominantly in the basal portions of the adenoma. Serotonin-immunoreactive cells can be recognized as basal granulated cells (enterochromaffin cells: EC cells) with eosinophilic fine granules. Glicentin-immunoreactive cells are also observed. EC cells and glicentin cells are seen in intestinal metaplasia. Paneth cells with supranuclear eosinophilic coarse granules may also be seen in gastric tubular adenoma. Since EC cells and Paneth cells are seen in the intestinal mucosa, the gastric adenoma with these cells should be categorized in the intestinal type.

Ref.-1: Rode J, et al. Neuroendocrine cells in gastric adenoma. Pathology 1992; 24(Suppl 1): 1. doi: 10.1016/S0031-3025(16)35883-4

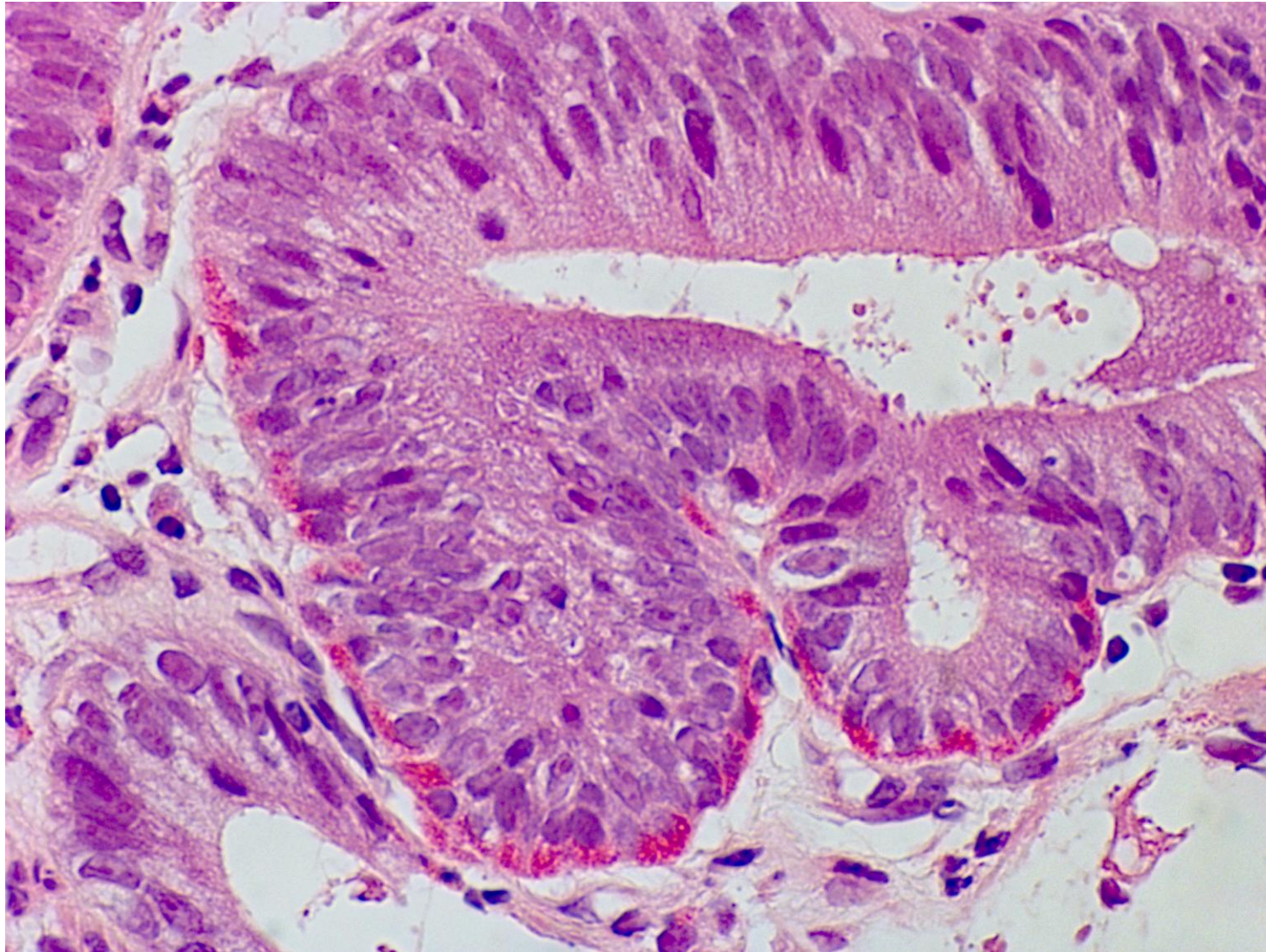
Ref.-2: Jin X, et al. Paneth cell adenoma of the stomach. Chin J Cancer Res 1993; 5: 148-152. doi: 10.1007/BF02997608



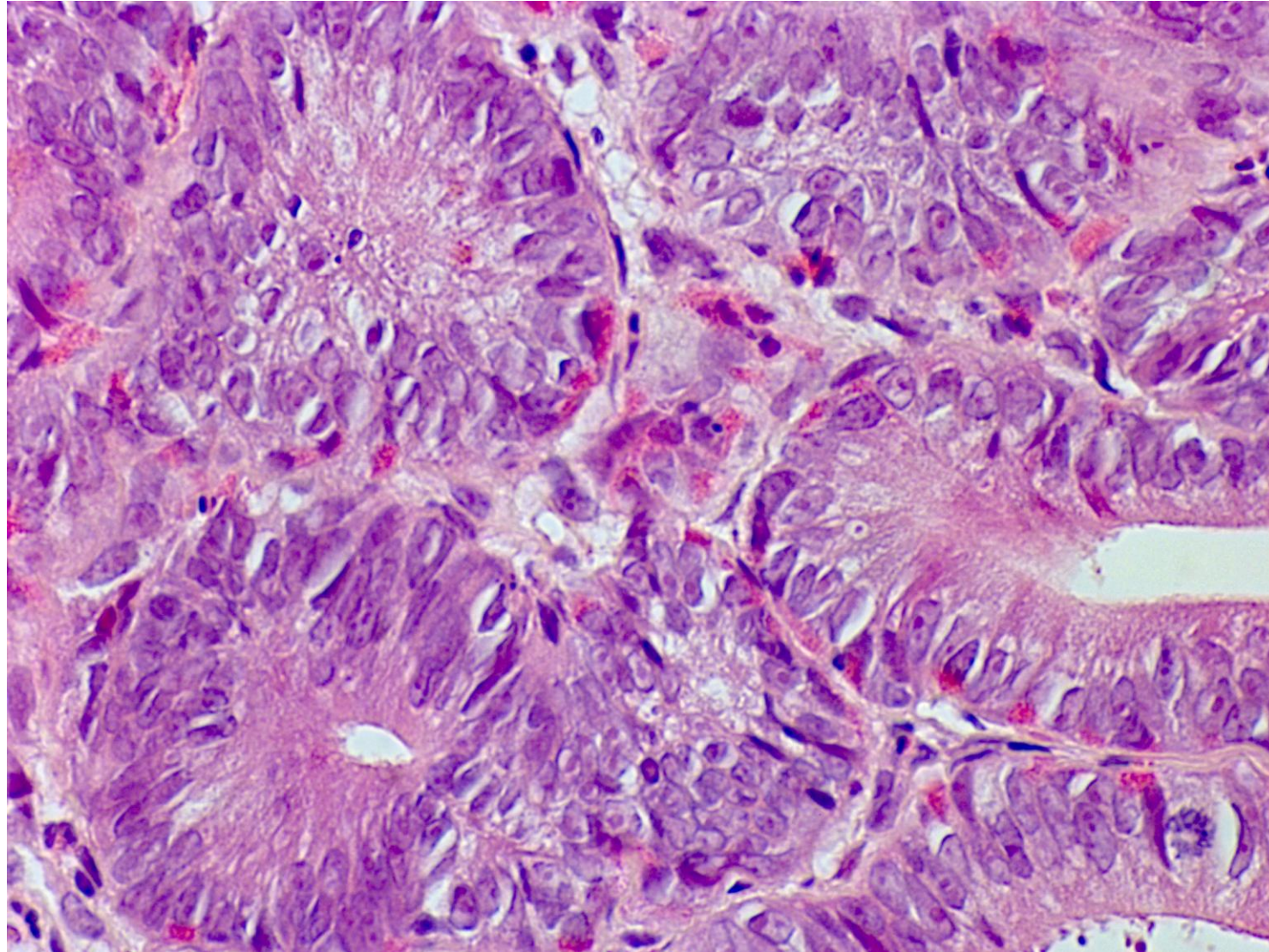
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation replace the gastric mucosa, forming an elevated lesion. Paneth cells are dispersed (H&E-1).



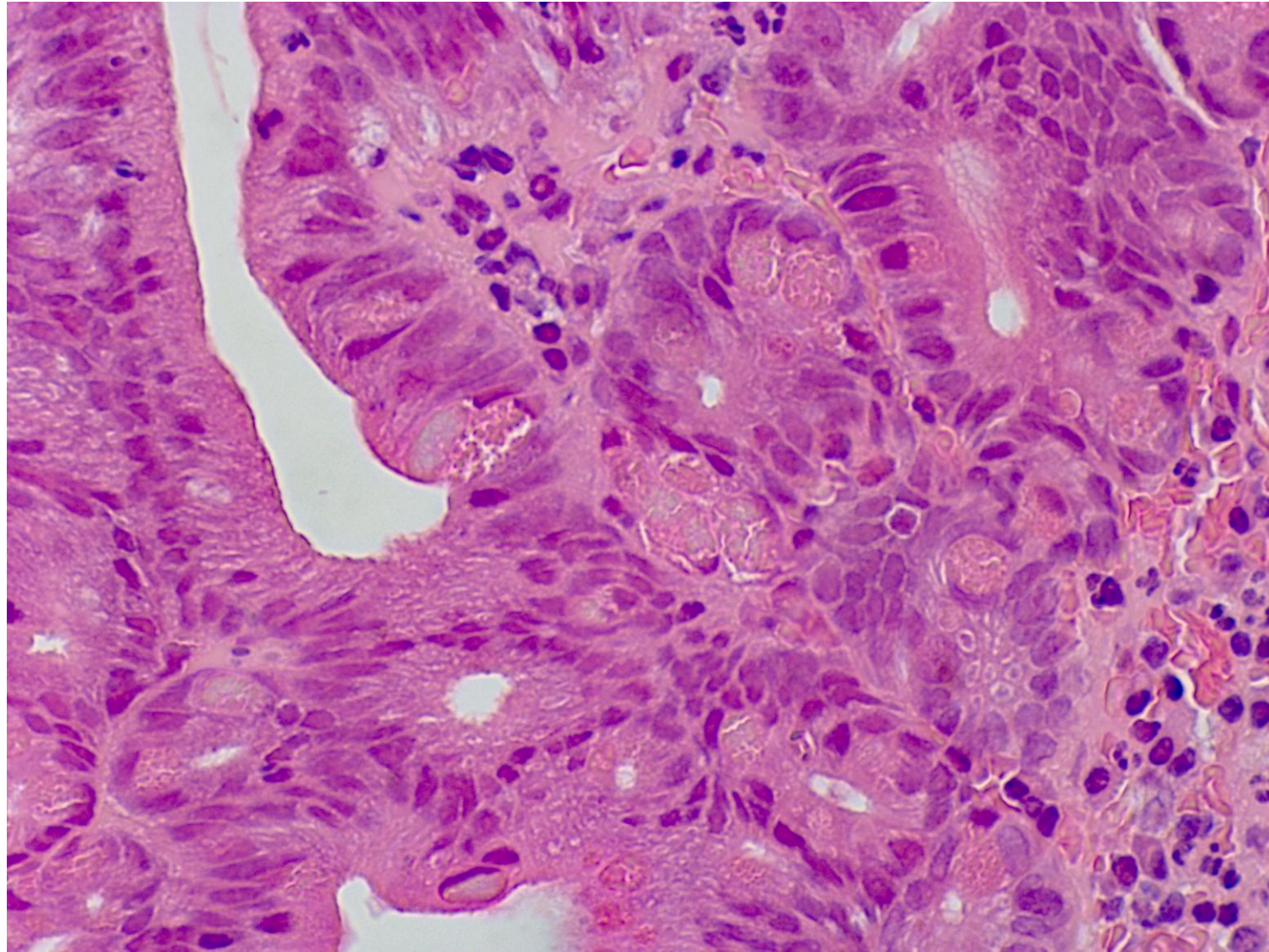
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation contain numbers of enterochromaffin cells with subnuclear eosinophilic fine granules. Arrowhead indicates a Paneth cell with supranuclear eosinophilic coarse granules (H&E-2).



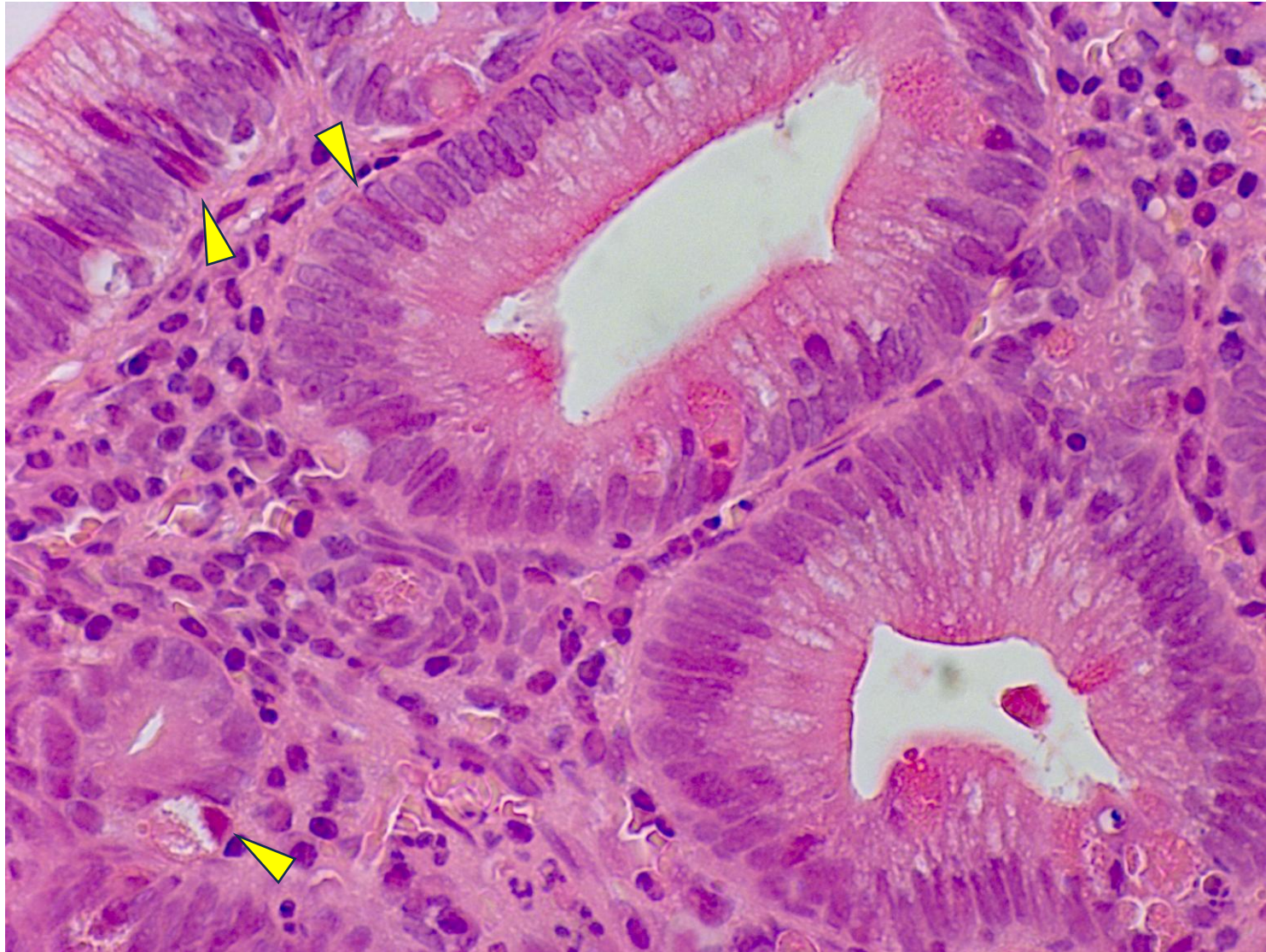
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation contain numbers of enterochromaffin cells with subnuclear eosinophilic fine granules. (H&E-3).



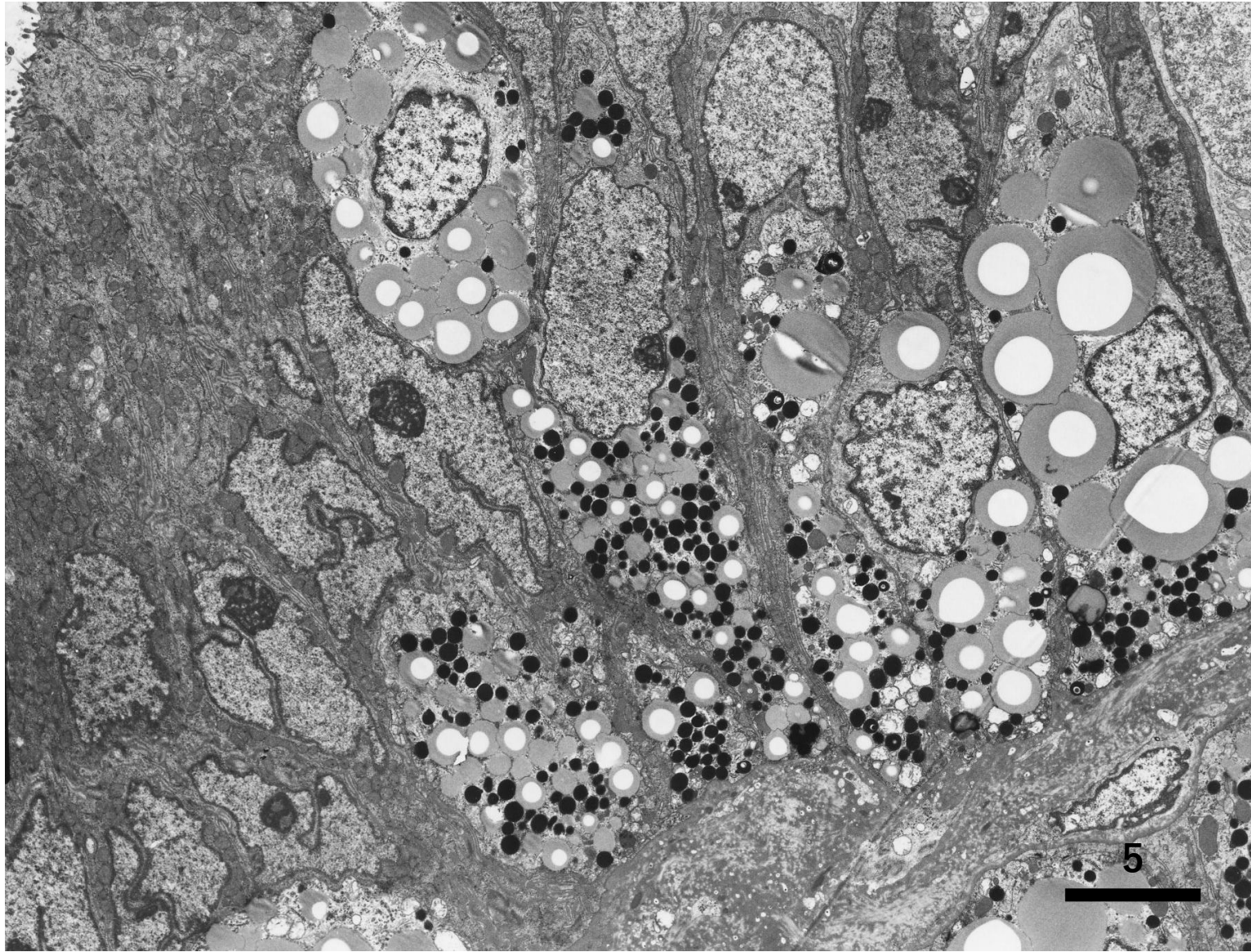
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation contain numbers of enterochromaffin cells with subnuclear eosinophilic fine granules. (H&E-4).



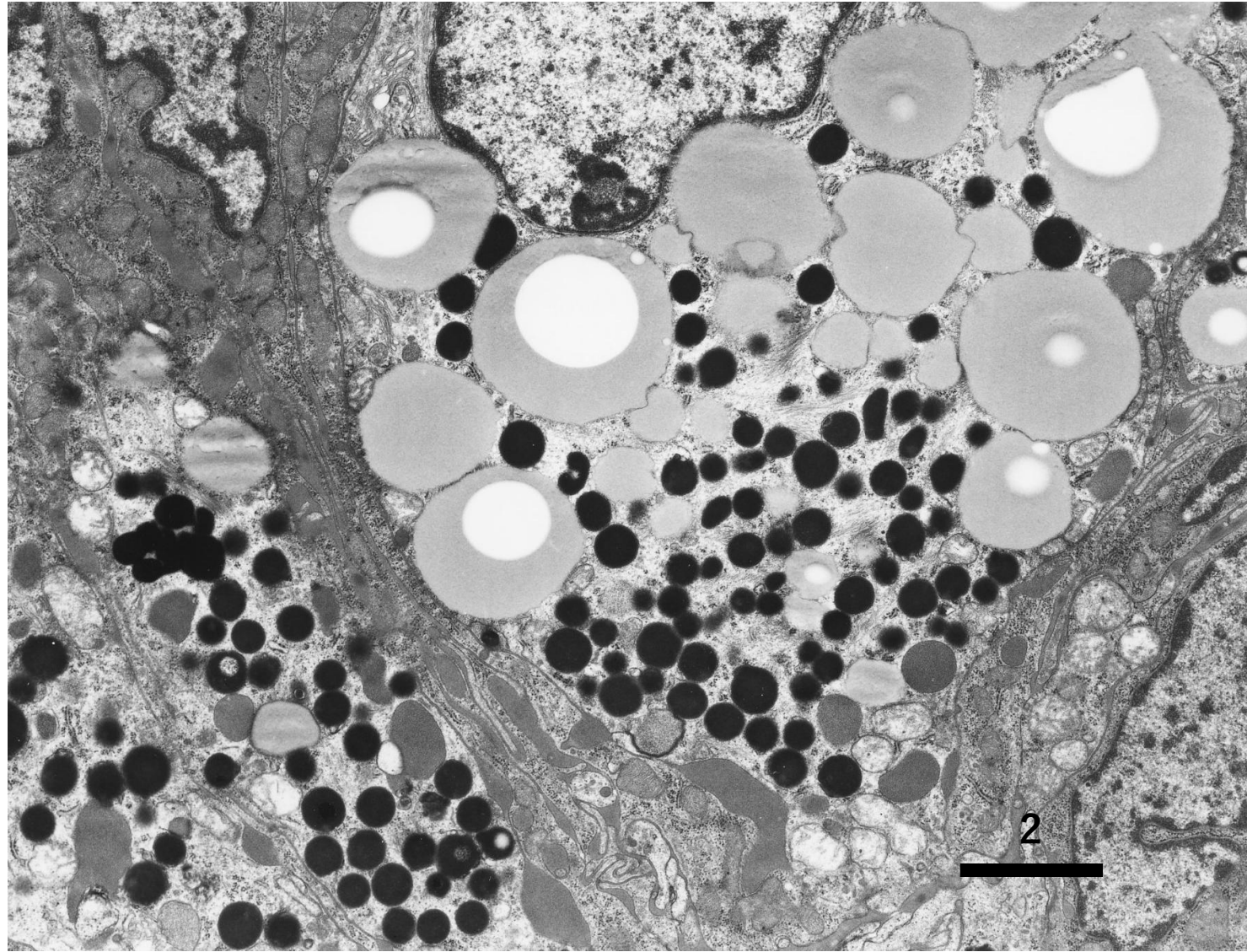
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation contain numbers of enterochromaffin cells with subnuclear eosinophilic fine granules. (H&E-5).



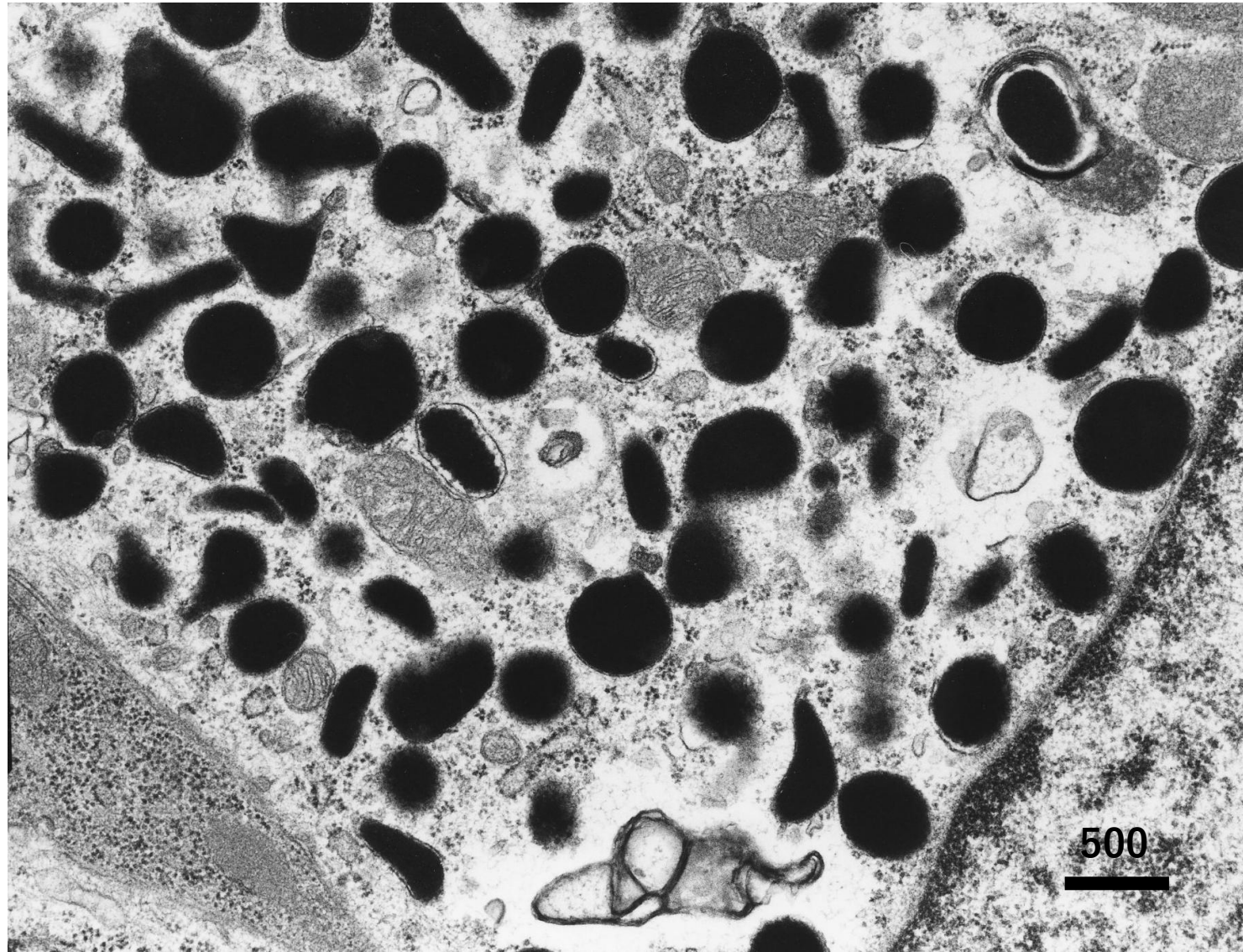
Gastric tubular adenoma biopsied from a 70 y-o male patient. Adenoma cells with tubule formation contain numbers of Paneth cells with supranuclear eosinophilic coarse granules. Enterochromaffin cells with subnuclear eosinophilic fine granules are also scattered (arrowheads) (H&E-6).



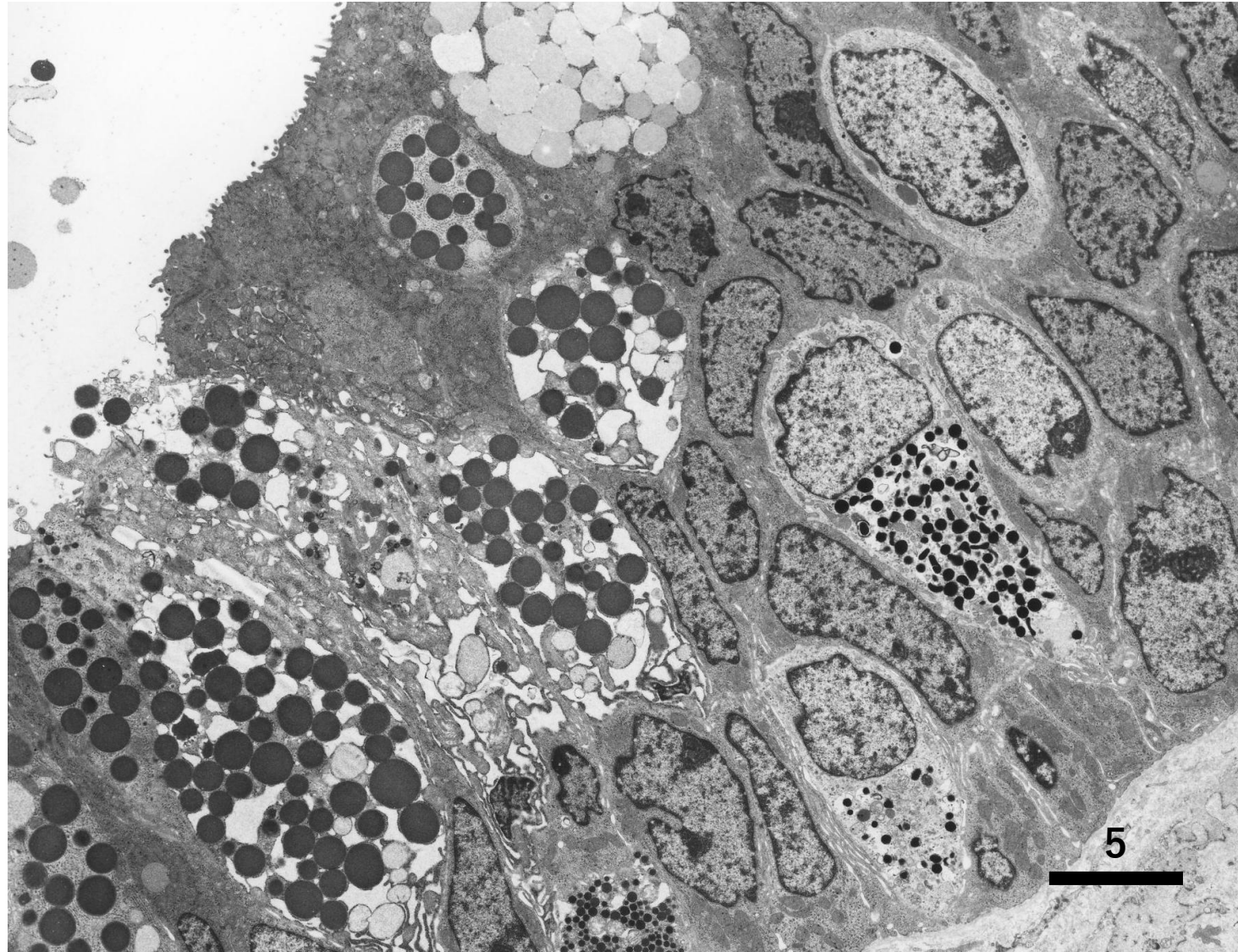
Ultrastructure of gastric tubular adenoma biopsied from a 70 y-o male patient. In the adenomatous tubule, neuroendocrine cells with electron-dense cored granules are clustered in the subnuclear cytoplasm. Lipid droplets are seen in the NE cells (TEM-1).



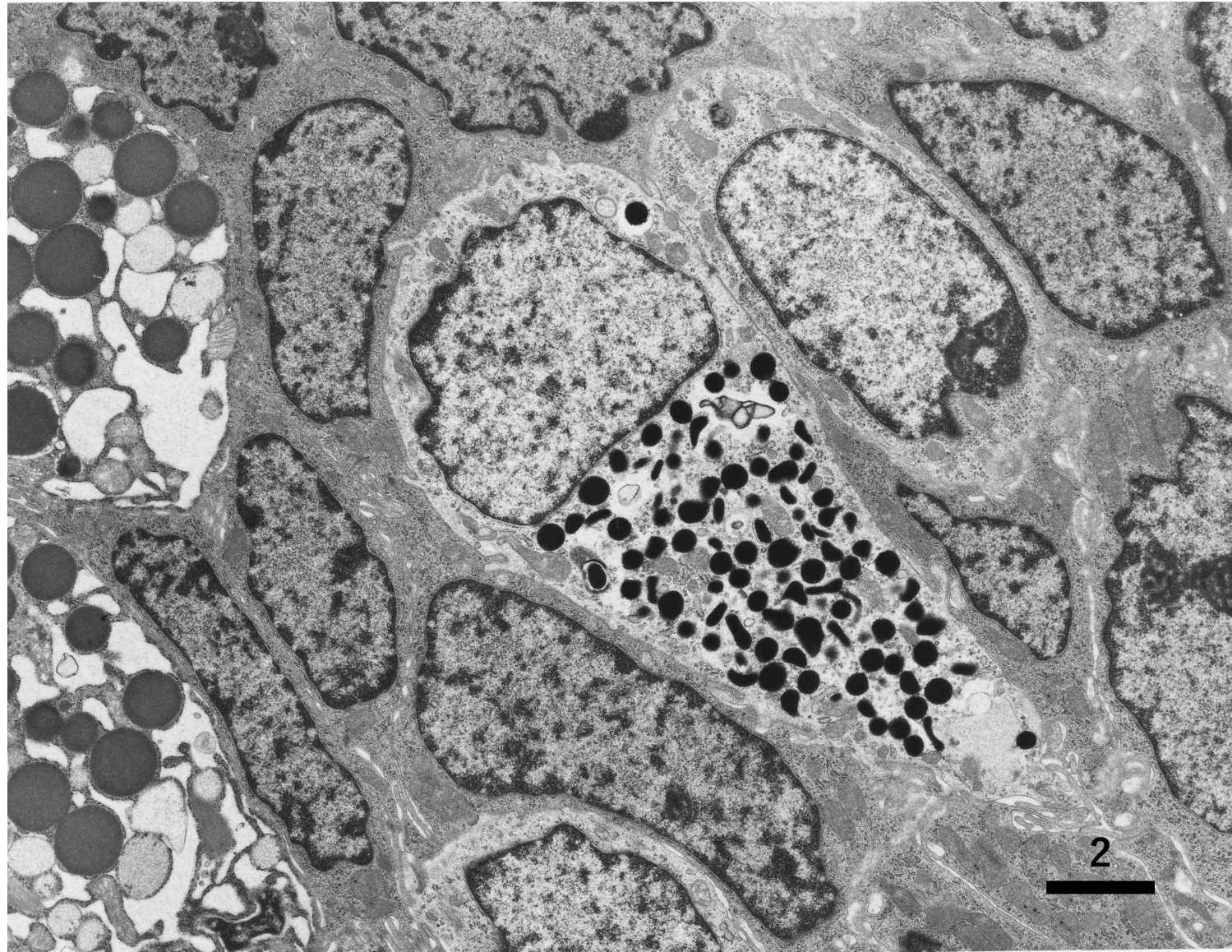
Ultrastructure of gastric tubular adenoma biopsied from a 70 y-o male patient. In the adenomatous tubule, neuroendocrine cells with electron-dense cored granules are clustered in the subnuclear cytoplasm. Lipid droplets are seen in the NE cells (TEM-2).



Ultrastructure of gastric tubular adenoma biopsied from a 70 y-o male patient. The neuroendocrine cell possesses electron-dense cored granules with irregular shape and size, being consistent with serotonin-type cells (TEM-3).



Ultrastructure of gastric tubular adenoma biopsied from a 70 y-o male patient. In the adenomatous tubule, both neuroendocrine cells with subnuclear small-sized electron-dense granules and Paneth cells with supranuclear large-sized electron-dense granules are observed (TEM-4).



Ultrastructure of gastric tubular adenoma biopsied from a 70 y-o male patient. In the adenomatous tubule, both neuroendocrine cell with subnuclear small-sized electron-dense granules and Paneth cell with supranuclear large-sized electron-dense granules are observed (TEM-5).