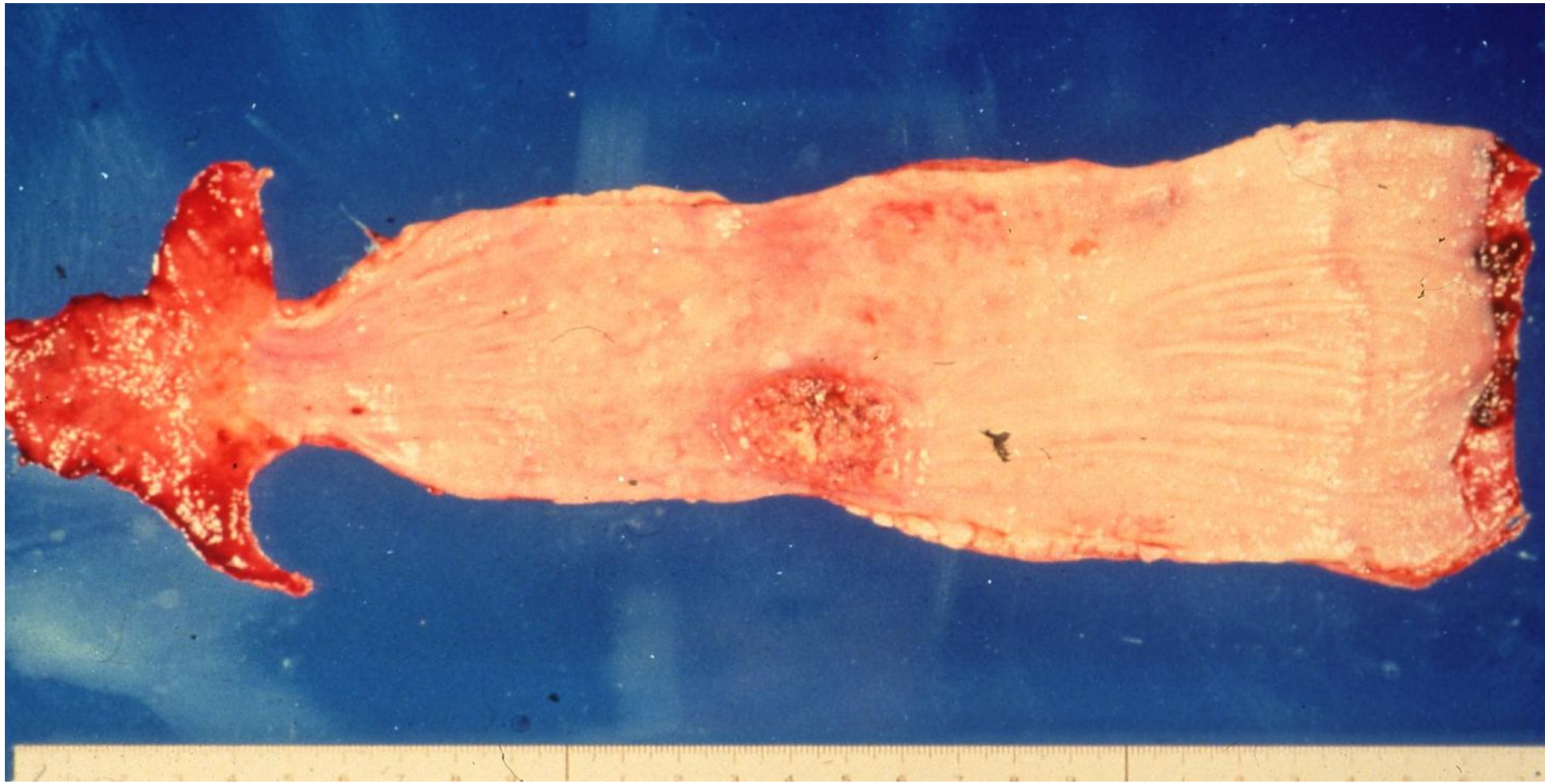
Achalasia with squamous cell carcinoma

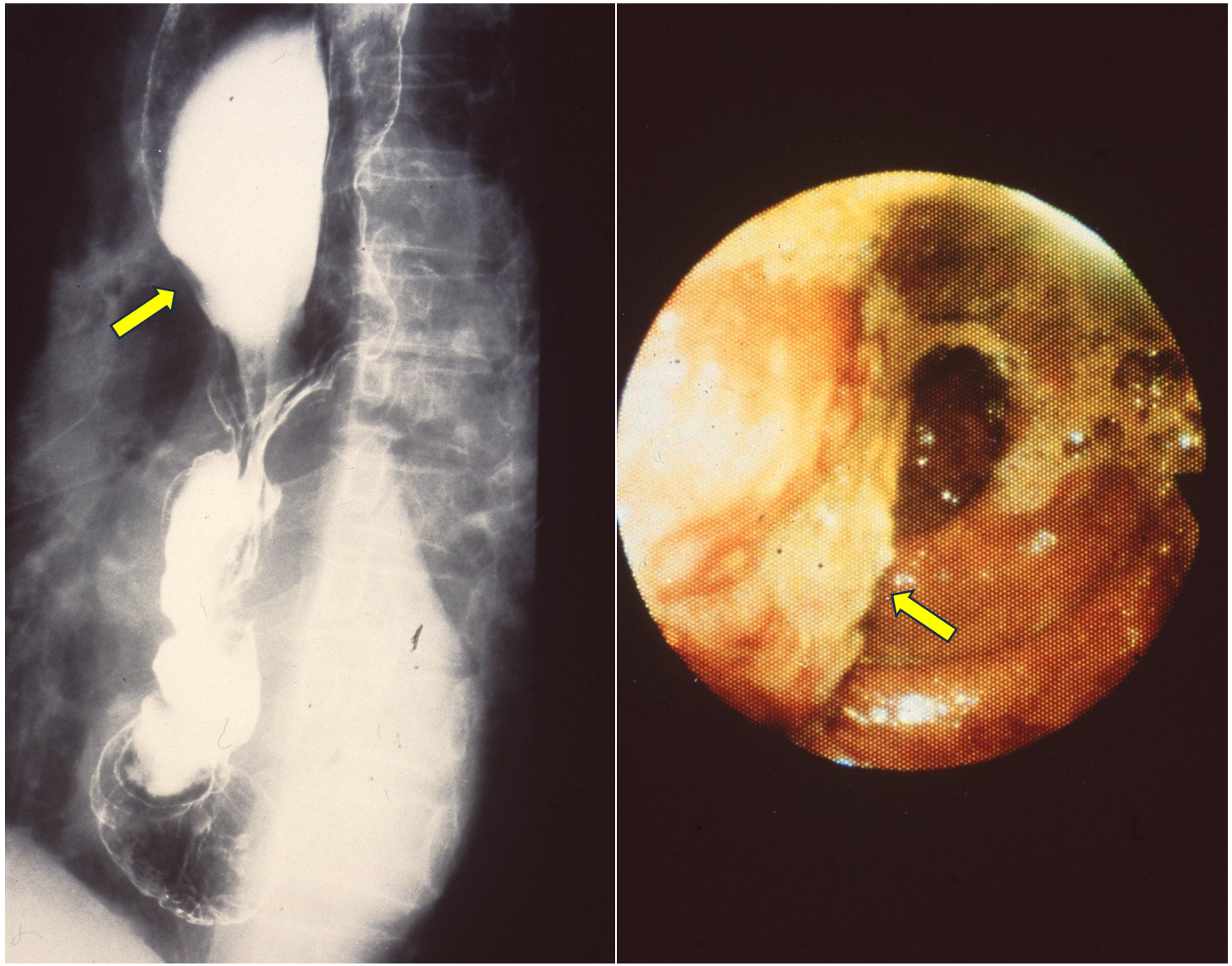
Achalasia is an esophageal motility disorder characterized by aberrant peristalsis and insufficient relaxation of the lower esophageal sphincter. Chronic inflammation of the Auerbach's myenteric plexus causes the disease. The esophageal lumen is dilated. Patients present with dysphagia to both solids and liquids, regurgitation and occasional chest pain with or without weight loss. Patients with achalasia may also have GERD with Barrett's mucosa. The risk of esophageal squamous cell carcinoma is increased, at 20-30 years after diagnosis of achalasia (see also GI-28-2-eso). p53 immunostaining can be a marker of esophageal dysplasia. Microscopically, Auerbach's plexus has lymphocytic inflammation (cytotoxic T cells and eosinophils) with germinal center formation. In a late stage, marked depletion/absence of ganglion cells in Auerbach's plexus, particularly in the middle of the esophagus. Fibrosis and muscular hypertrophy may be seen. The ganglion cells may be preserved at the lower esophageal sphincter.

Ref.-1: Chino O, et al. Clinicopathological studies of esophageal carcinoma in achalasia: analyses of carcinogenesis using histological and immunohistochemical procedures. Anticancer Res 2000; 20(5C): 3717-3722. PMID: 11268444

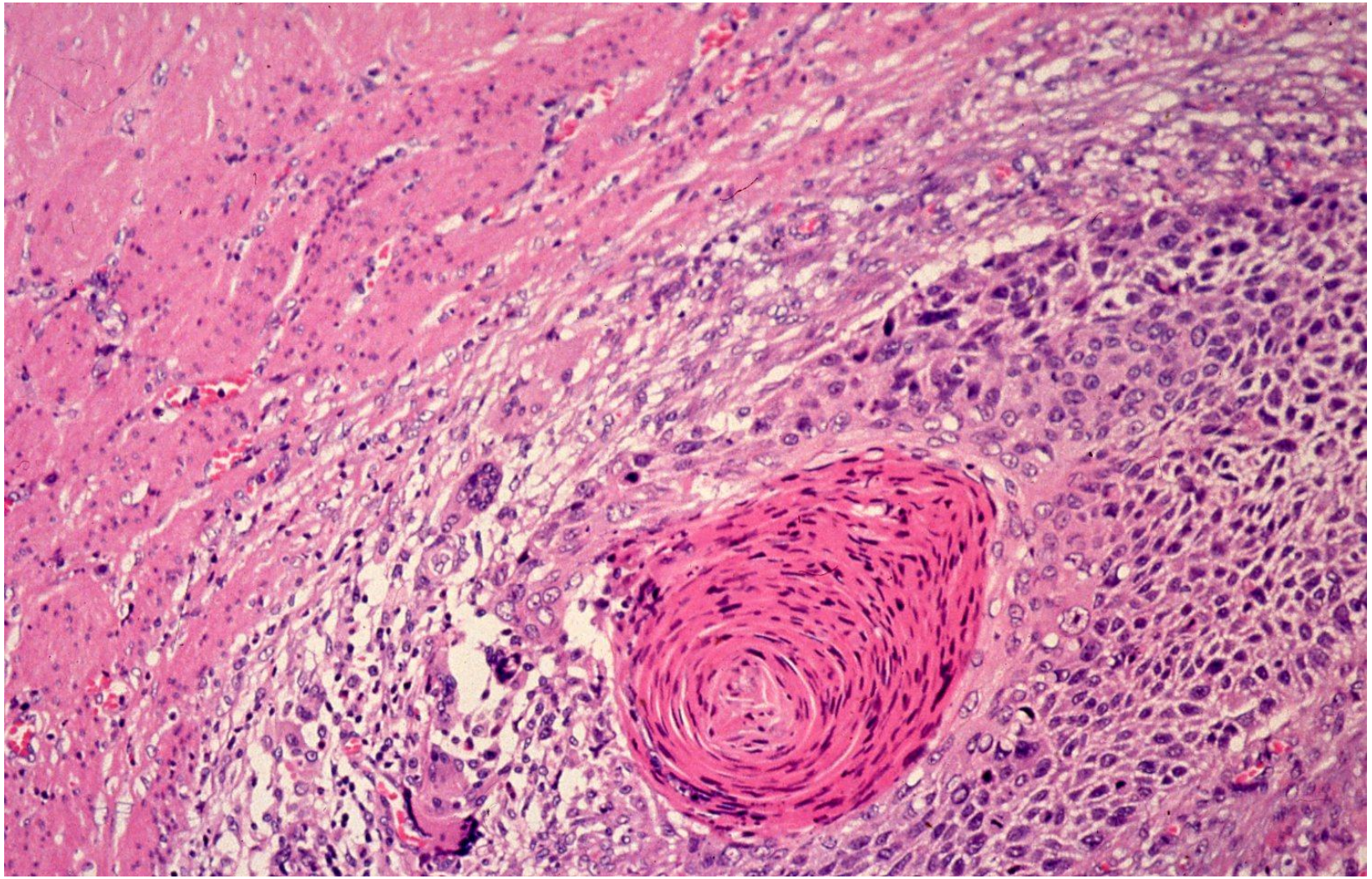
Ref.-2: Gockel I, et al. Spectrum of histopathologic findings in patients with achalasia reflects different etiologies. J Gastroenterol Hepatol 2006; 21(4): 727-733. doi: 10.1111/j.1440-1746.2006.04250.x



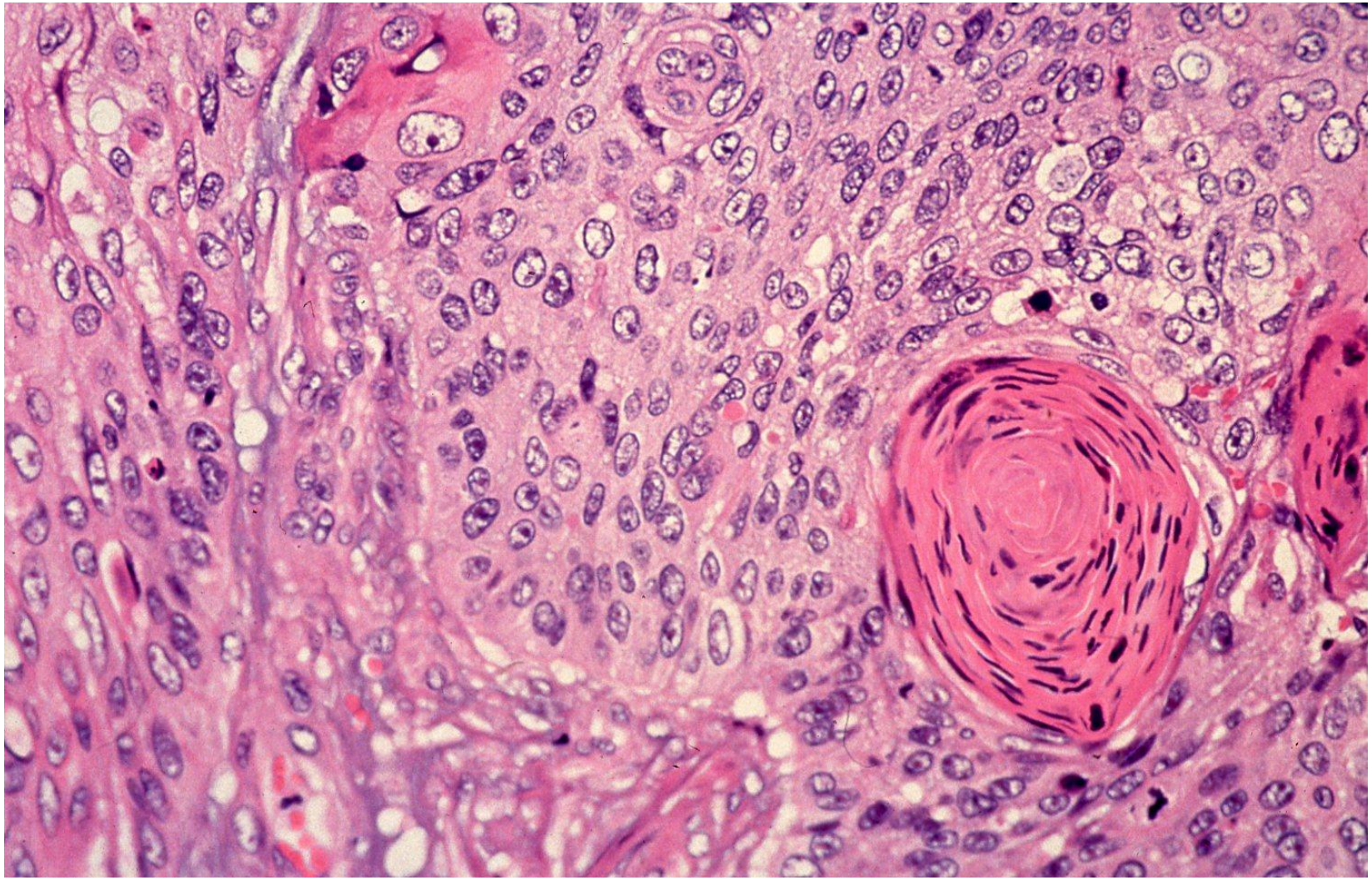
The surgical specimen of esophageal achalasia with squamous cell carcinoma seen in a 69-year-old female patient. The esophageal lumen above the lower esophageal sphincter is dilated. A 45 mm-sized squamous cell carcinoma is complicated in the mid-esophagus.



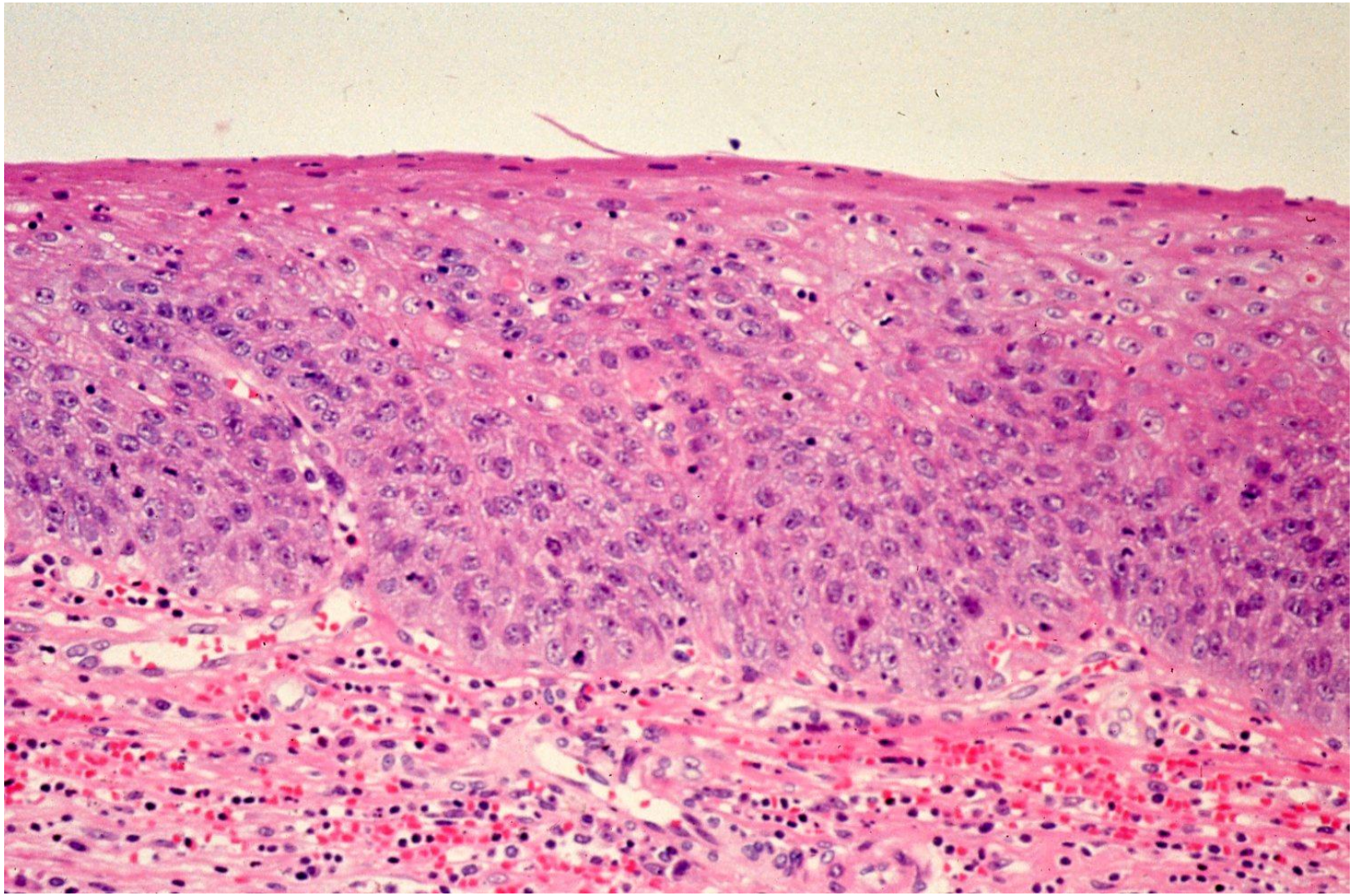
Radiological and endoscopic images of achalasia with squamous cell carcinoma in a 69-year-old female patient. A shadow defect and a Congo red-unstained nodule are observed, respectively (arrows).



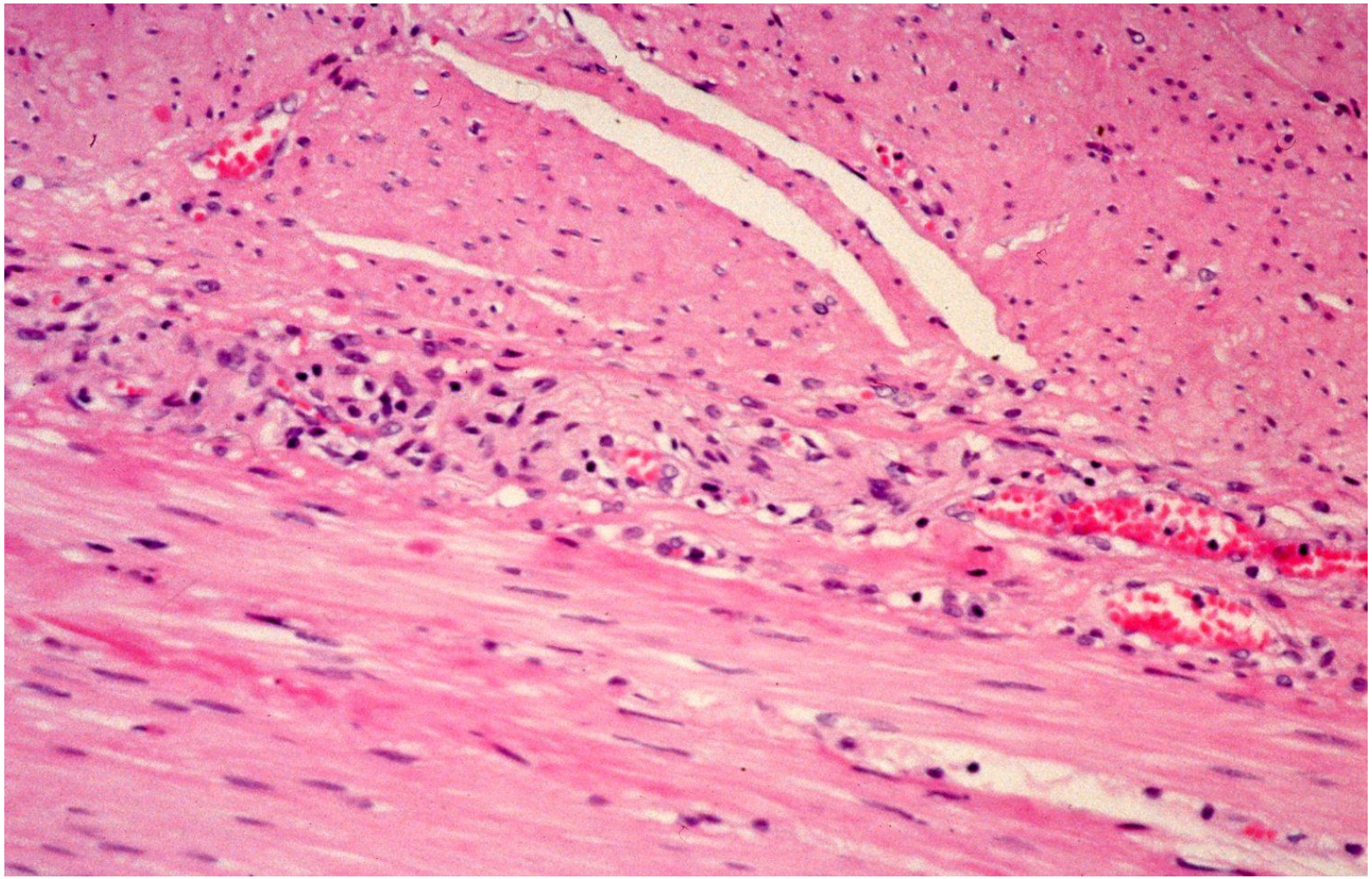
Squamous cell carcinoma, keratinizing type, invades the esophageal wall in long-standing esophageal achalasia (a 69-year-old female patient). H&E-1



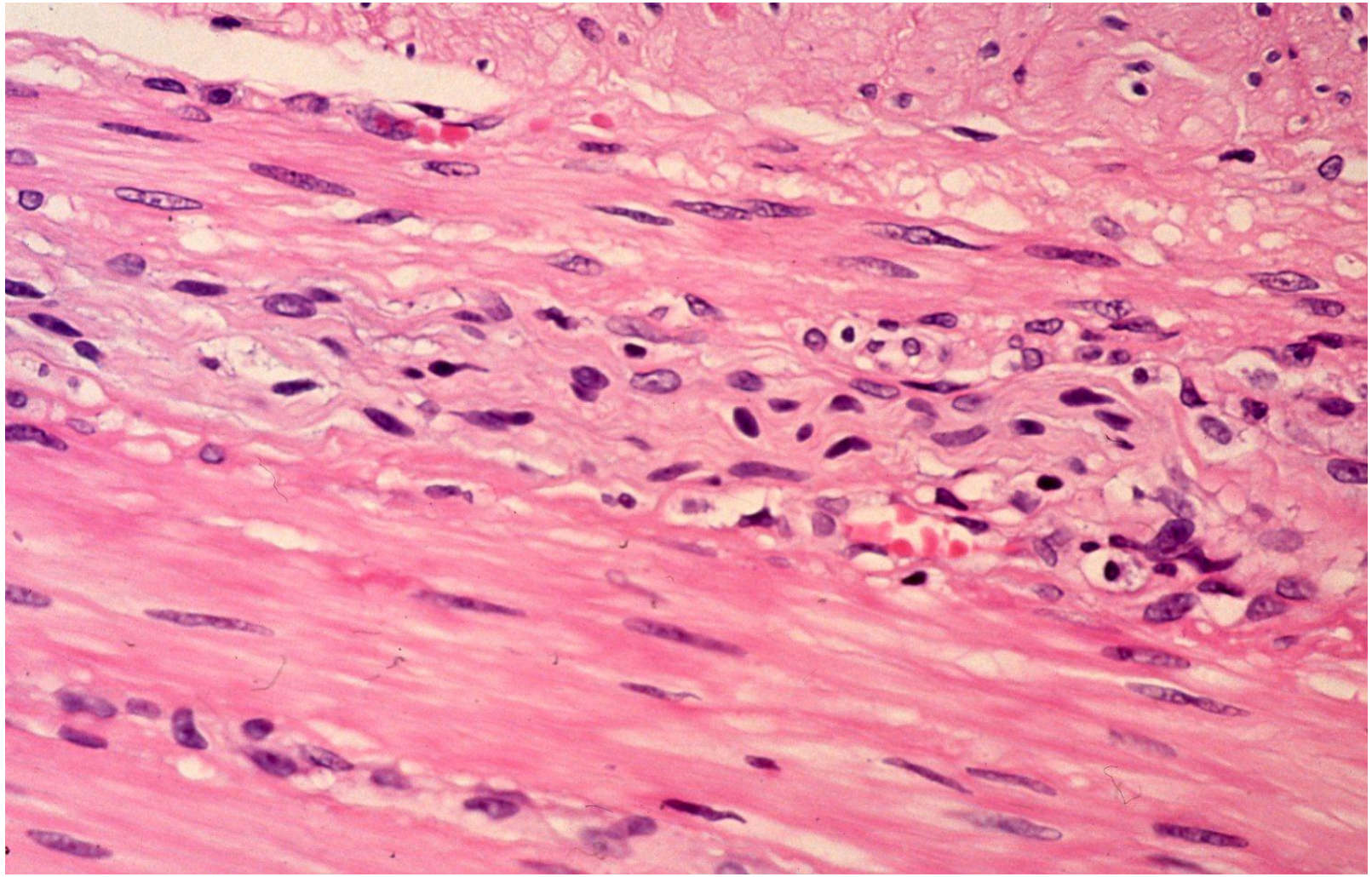
Squamous cell carcinoma, keratinizing type, invades the esophageal wall in long-standing esophageal achalasia (a 69-year-old female patient). H&E-2



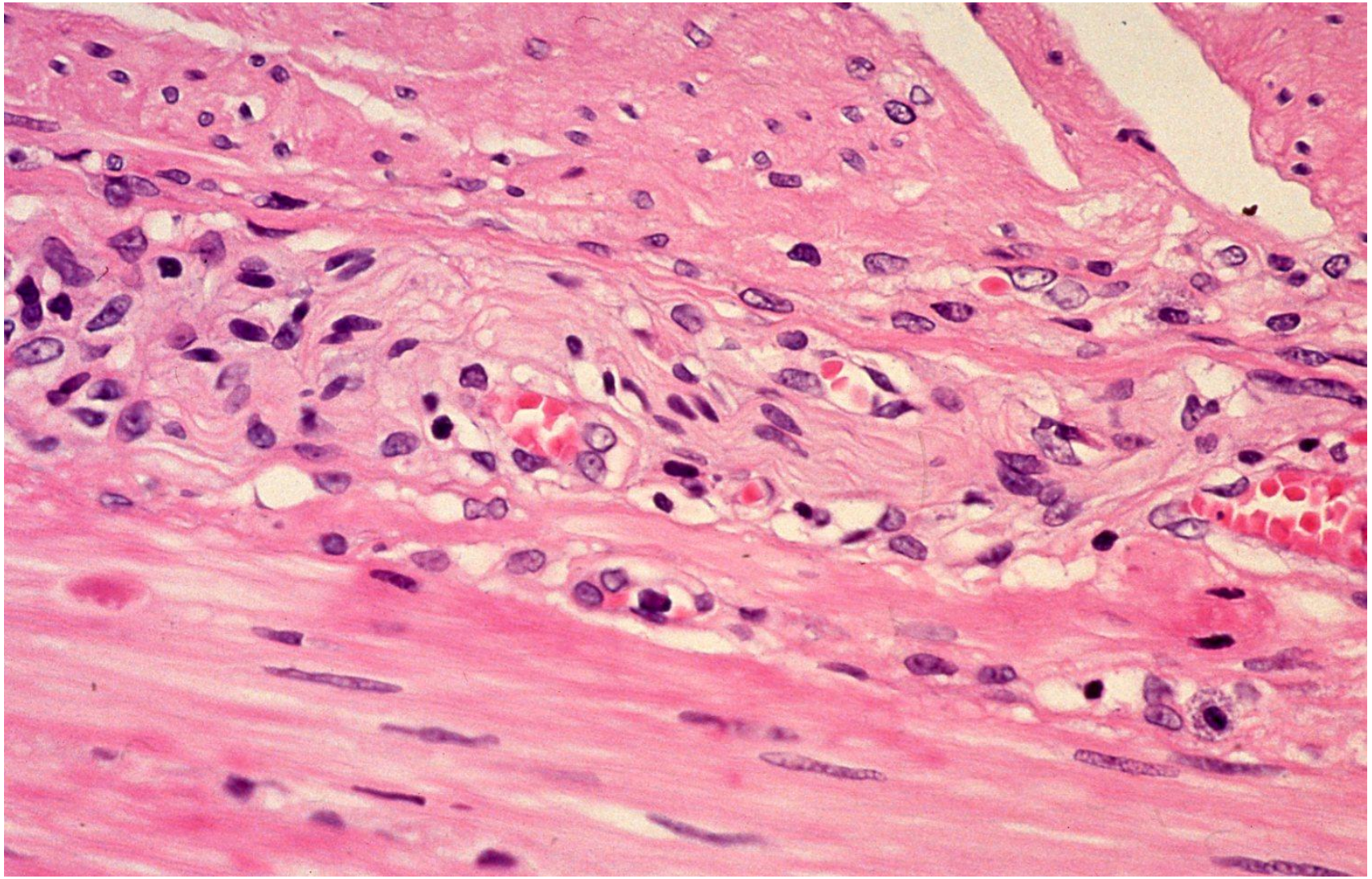
An intramucosal lesion of squamous cell carcinoma seen in long-standing esophageal achalasia (a 69-year-old female patient). H&E-3



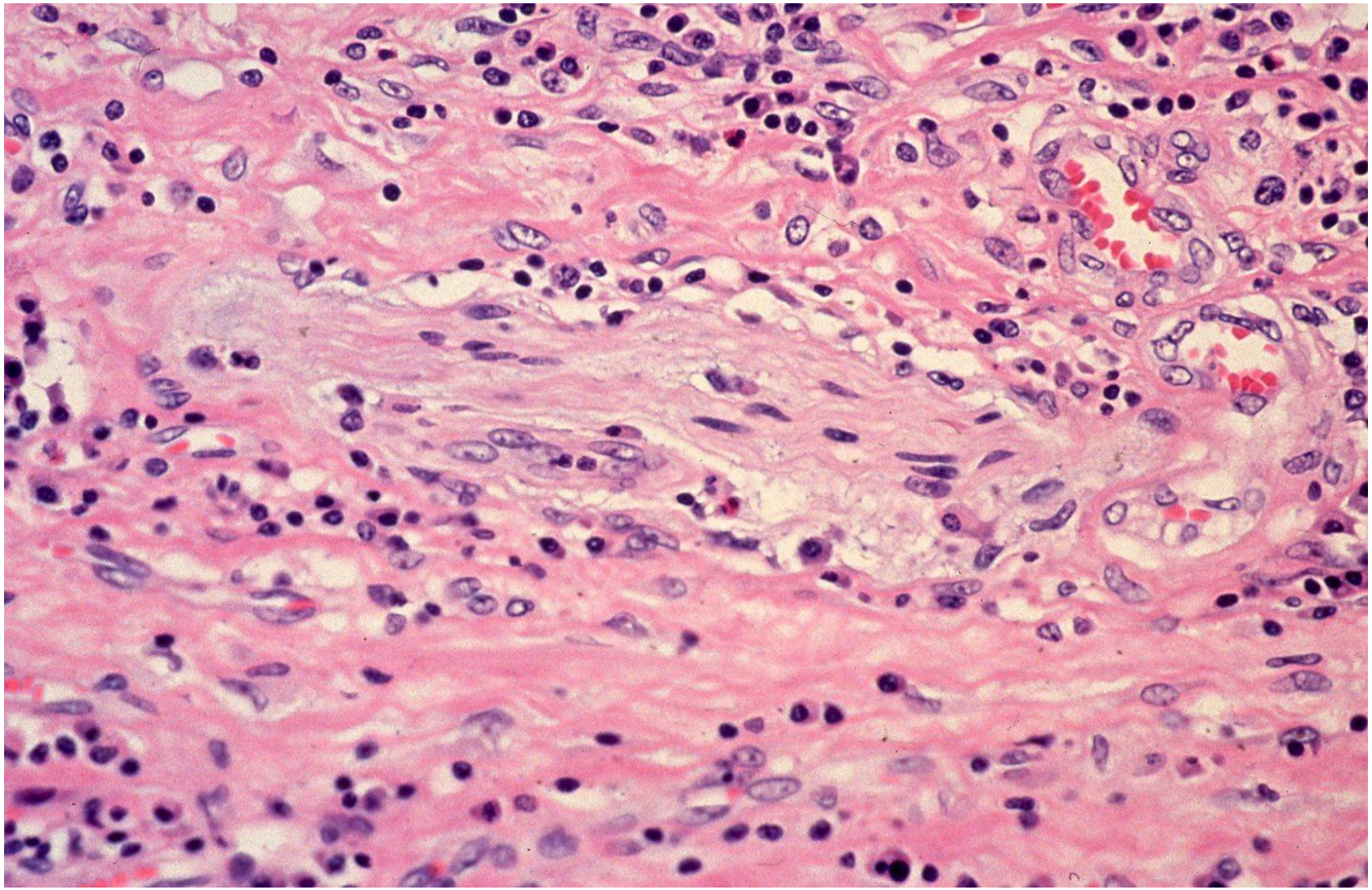
In esophageal acahalasia in a 69-year-old female patient, Auerbach's plexus shows mild infiltration of small lymphocytes with a few eosinophils. Ganglion cells in Auerbach's plexus are lost. H&E-4



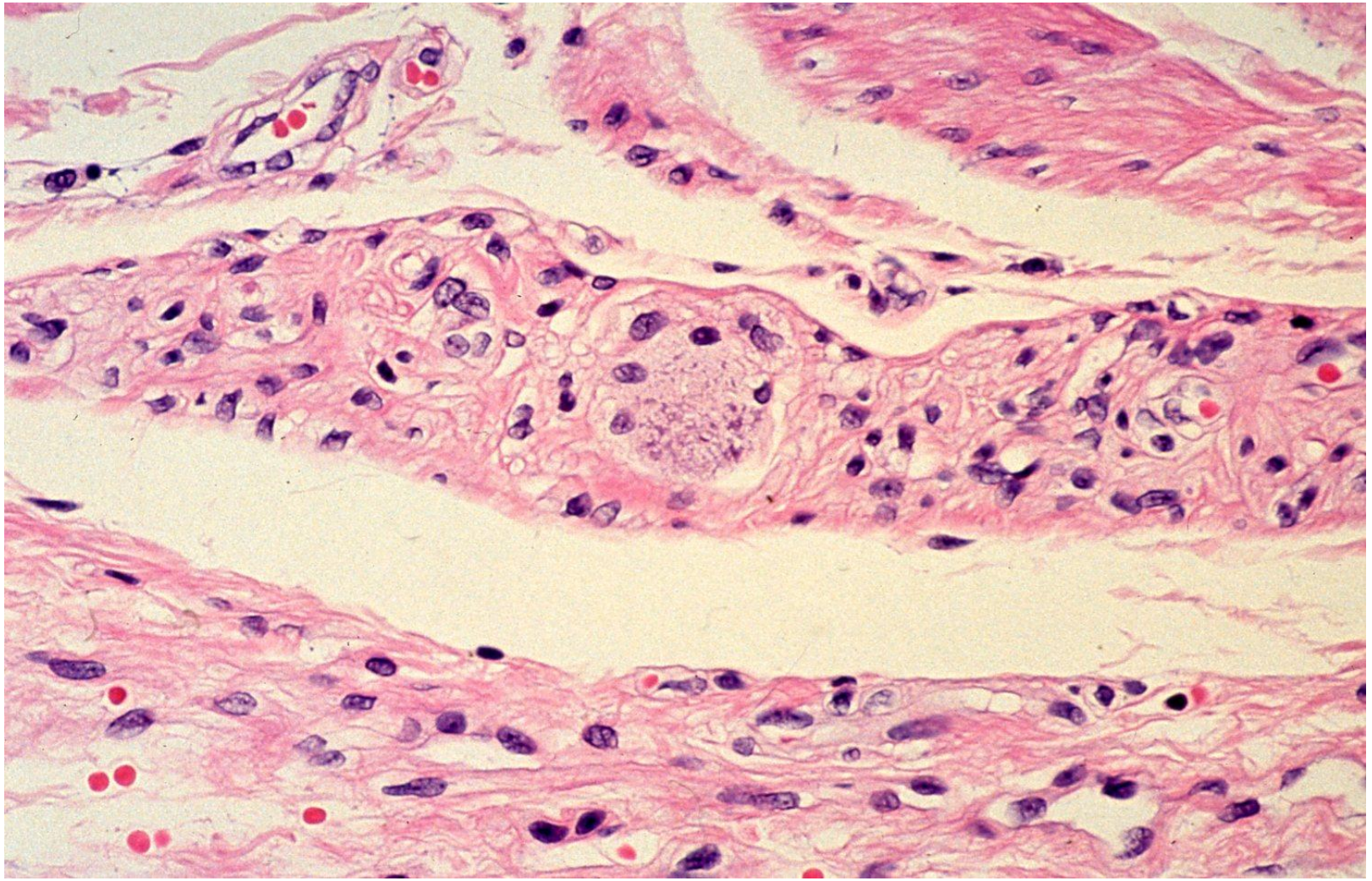
In esophageal acahalasia in a 69-year-old female patient, Auerbach's plexus shows mild infiltration of small lymphocytes. Ganglion cells in Auerbach's plexus are lost. H&E-5



In esophageal acahalasia in a 69-year-old female patient, Auerbach's plexus shows mild infiltration of small lymphocytes with a few eosinophils. Ganglion cells in Auerbach's plexus are lost. H&E-6



In esophageal acahalasia in a 69-year-old female patient, Auerbach's plexus shows mild infiltration of small lymphocytes with a few eosinophils. Ganglion cells in Auerbach's plexus are lost. H&E-7



In esophageal acahalasia in a 69-year-old female patient, Auerbach's plexus shows mild infiltration of small lymphocytes. A ballooned ganglion cell is seen in Auerbach's plexus. H&E-8