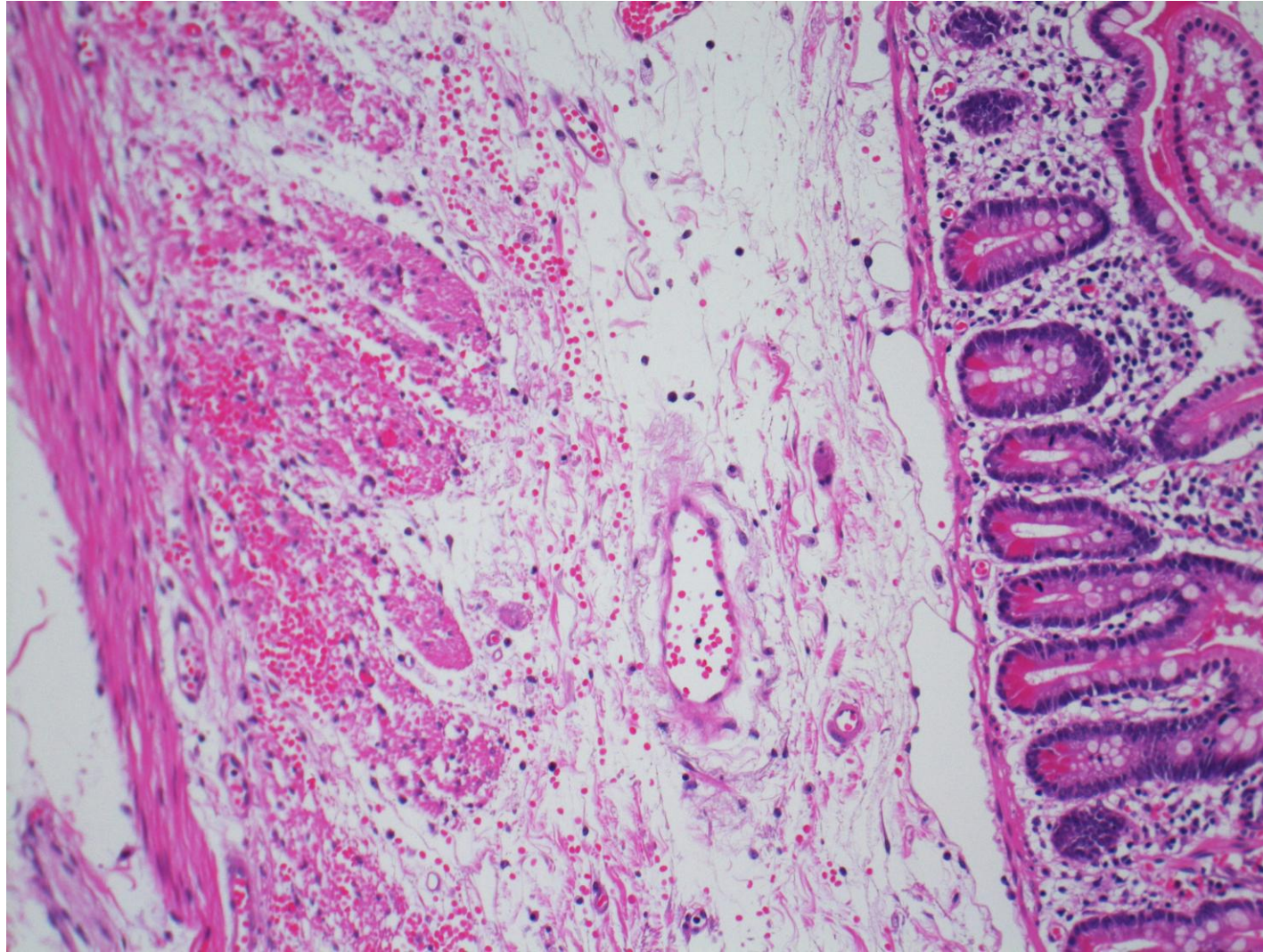


Hollow visceral myopathy

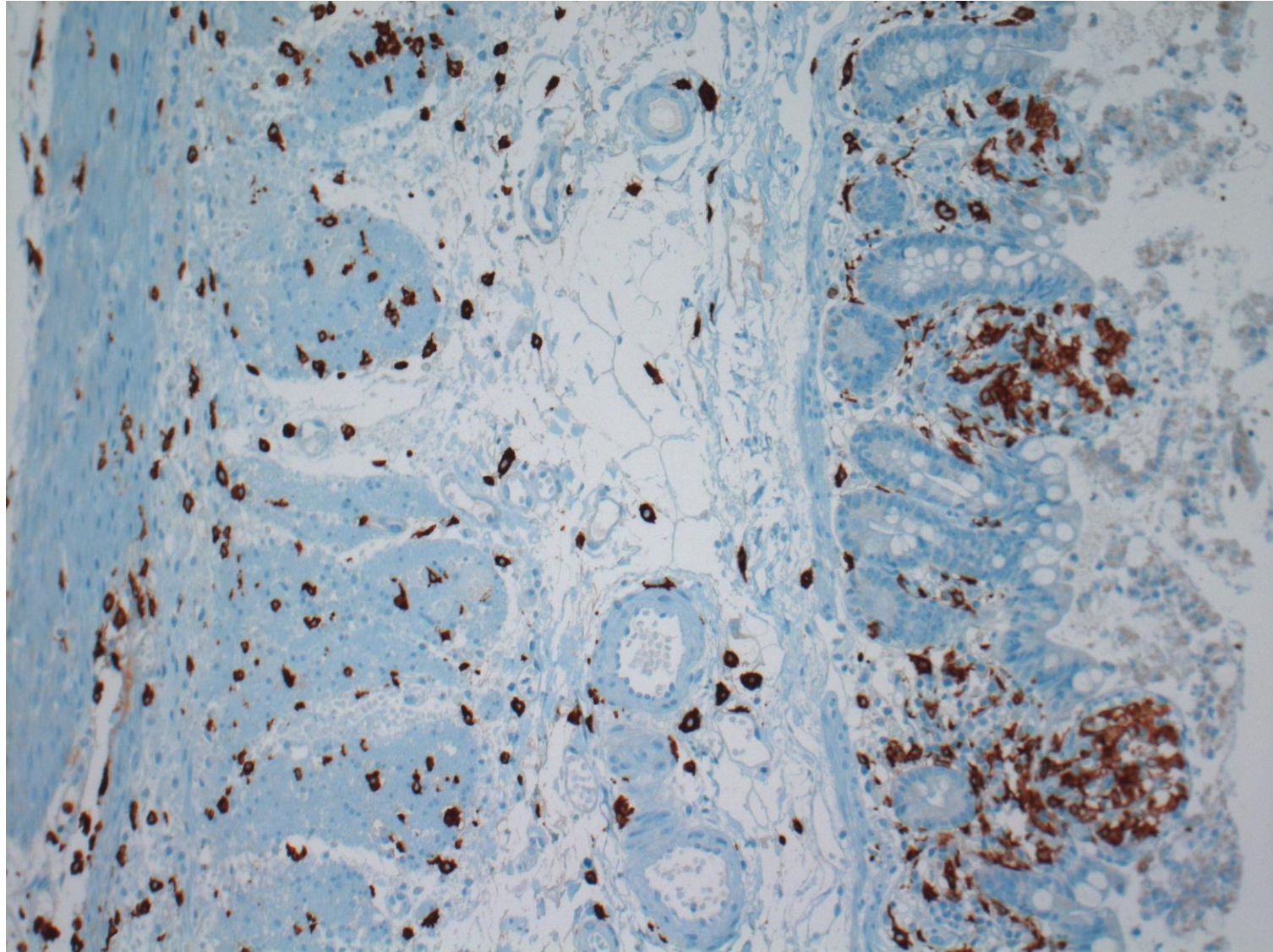
Hollow visceral myopathy, a milder form of enteric visceral myopathy, presents with impaired intestinal function and motility in the absence of mechanical obstruction. It involves the smooth muscle cells of the GI tract and occasionally the smooth muscle cells of the urinary tract. Clinical manifestations include nausea, vomiting, abdominal pain and distention. Microscopically, SMA content is decreased in the circular muscles of the muscularis propria of the small intestine.

A 68-year-old man with a history of appendectomy complained of vomiting, appetite loss and abdominal distension. Imaging studies disclosed pneumatosis cystoides intestinalis and portal pneumatosis. At emergency laparotomy, the small bowel was severely adhered with the colon.

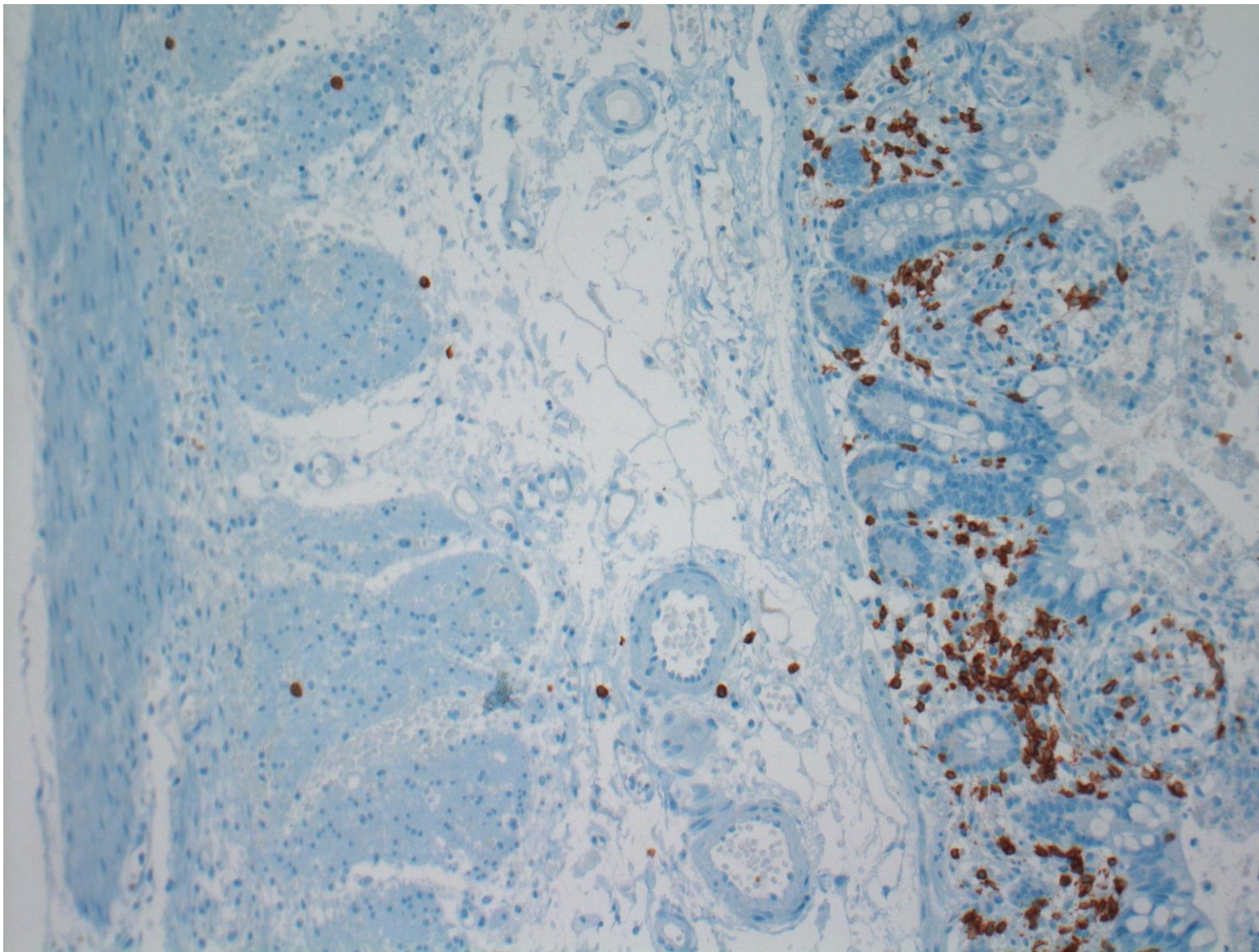
Ref.: Dahiya DS, et al. Hollow visceral myopathy, a rare gastrointestinal disorder: a case report and short review. J Investig Med High Impact Case Rep 2021; 9: 23247096211034303. doi: 10.1177/23247096211034303



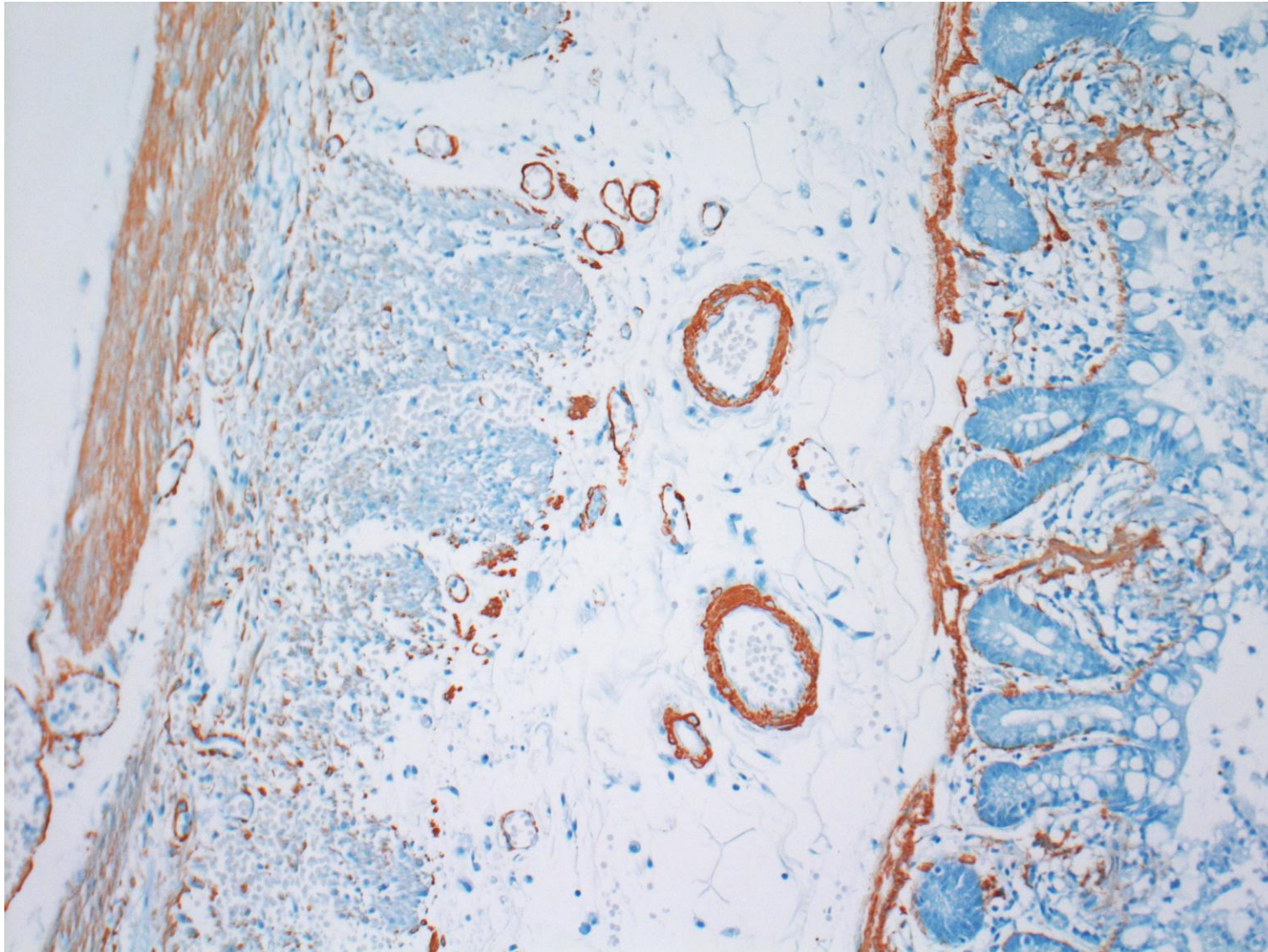
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals disorganization of the smooth muscle cells in the inner circular layer of the muscularis propria. Mononuclear cell infiltration is associated. H&E-1



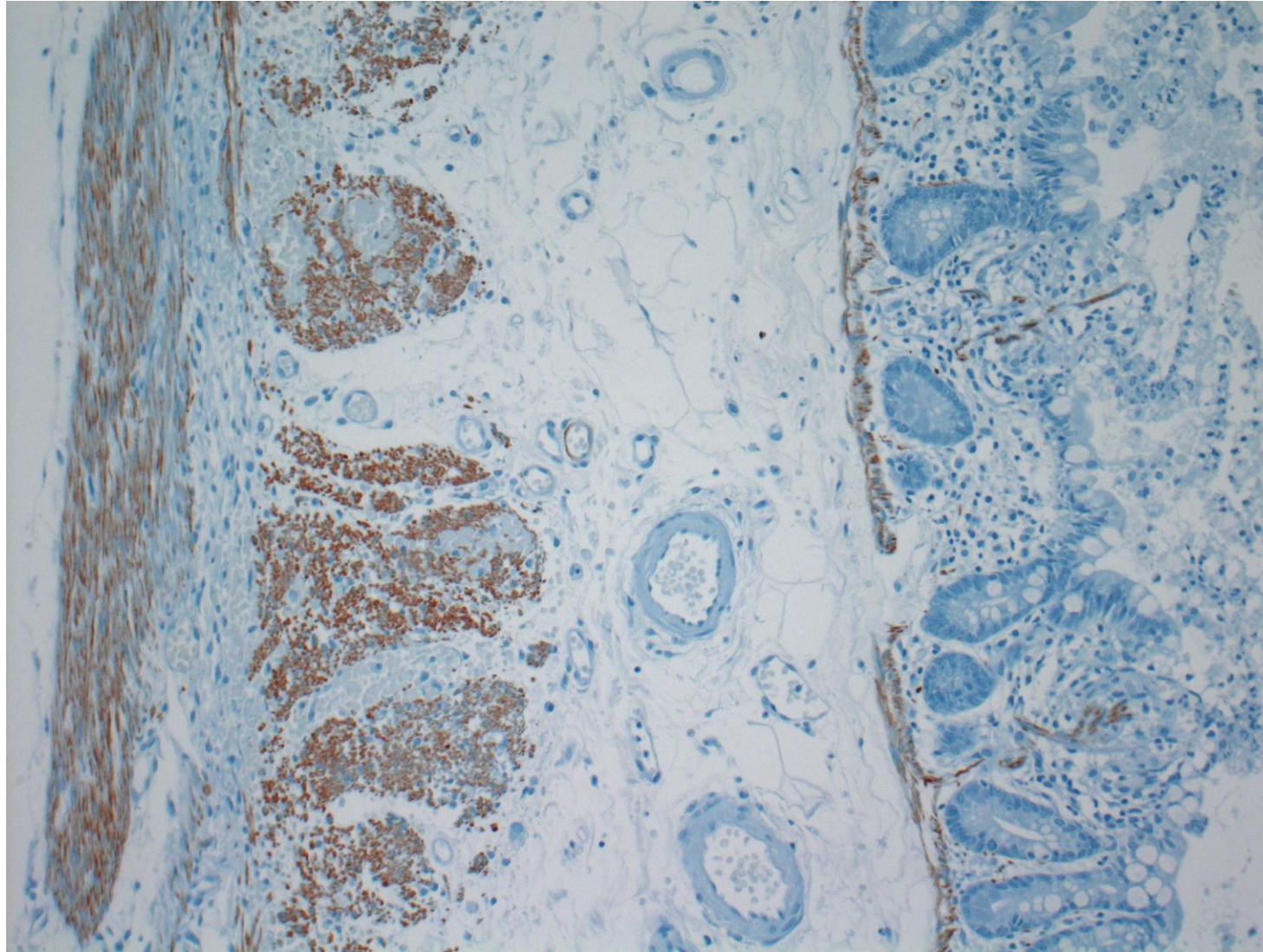
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals infiltration of CD163-positive macrophages in the disorganized inner circular layer of the muscularis propria. Immunostaining for CD163



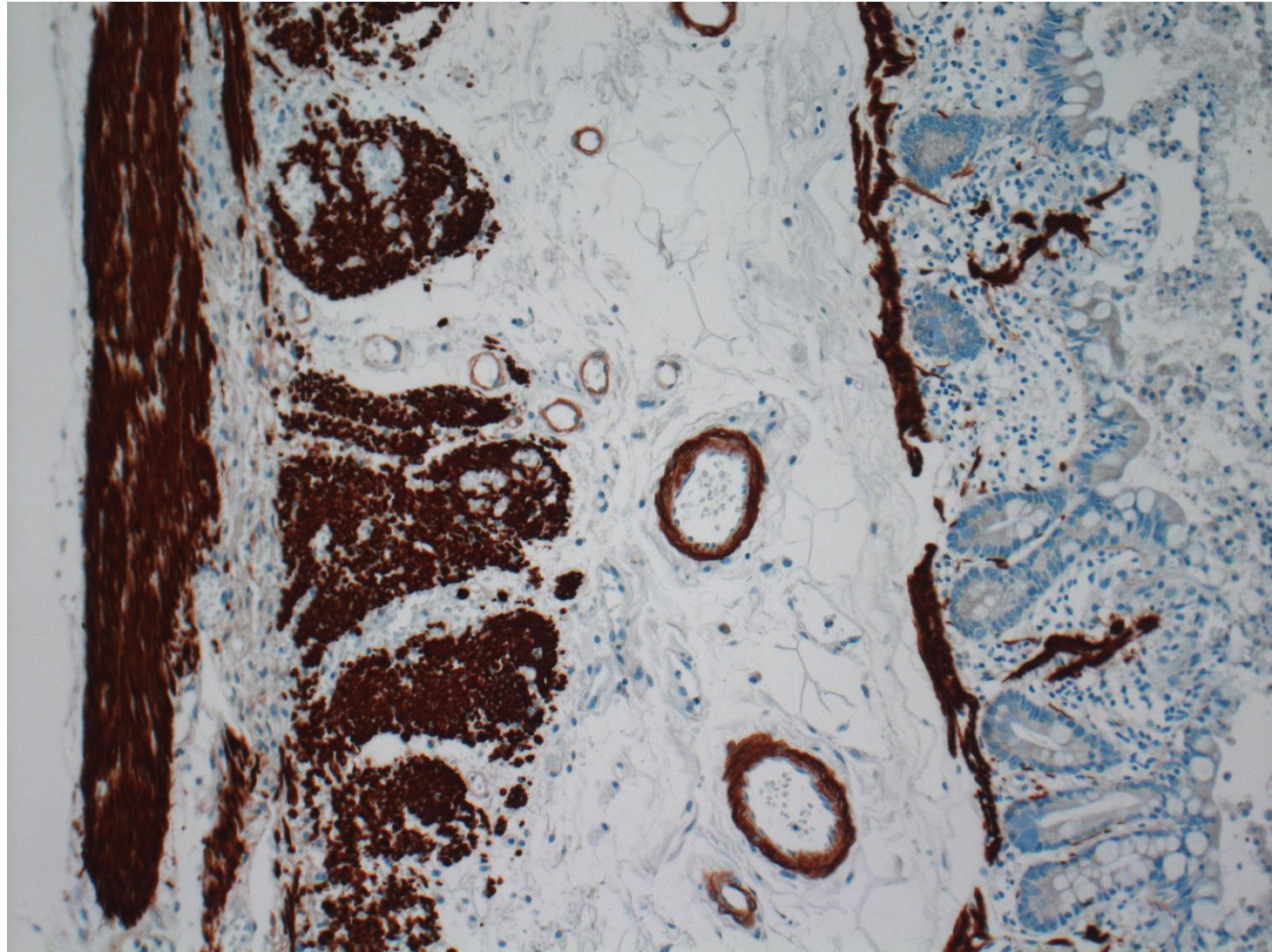
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals only a few CD3-positive T-lymphocytes in the disorganized inner circular layer of the muscularis propria. Immunostaining for CD3



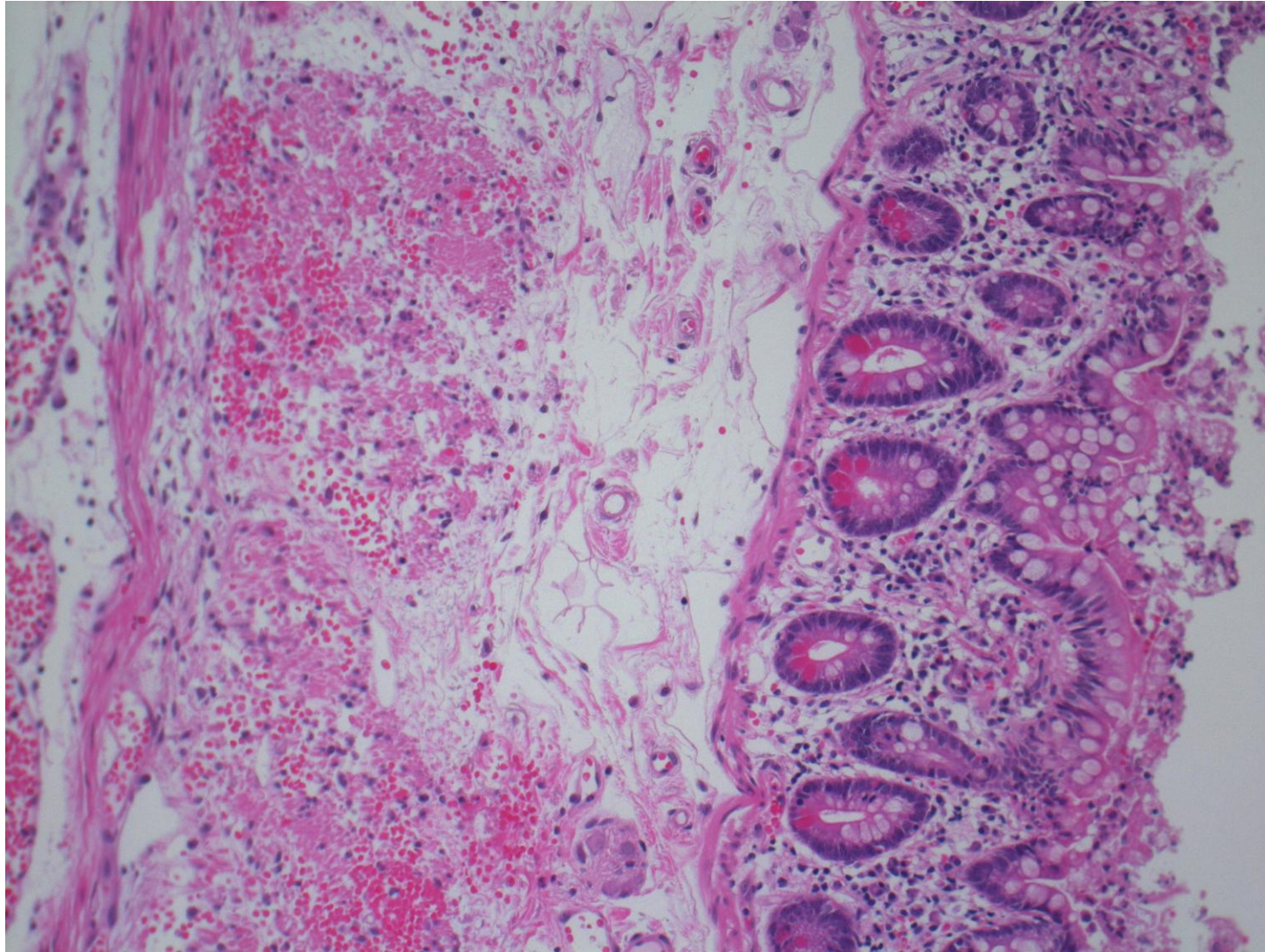
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals markedly decreased expression of SMA in the disorganized inner circular layer of the muscularis propria. Immunostaining for SMA



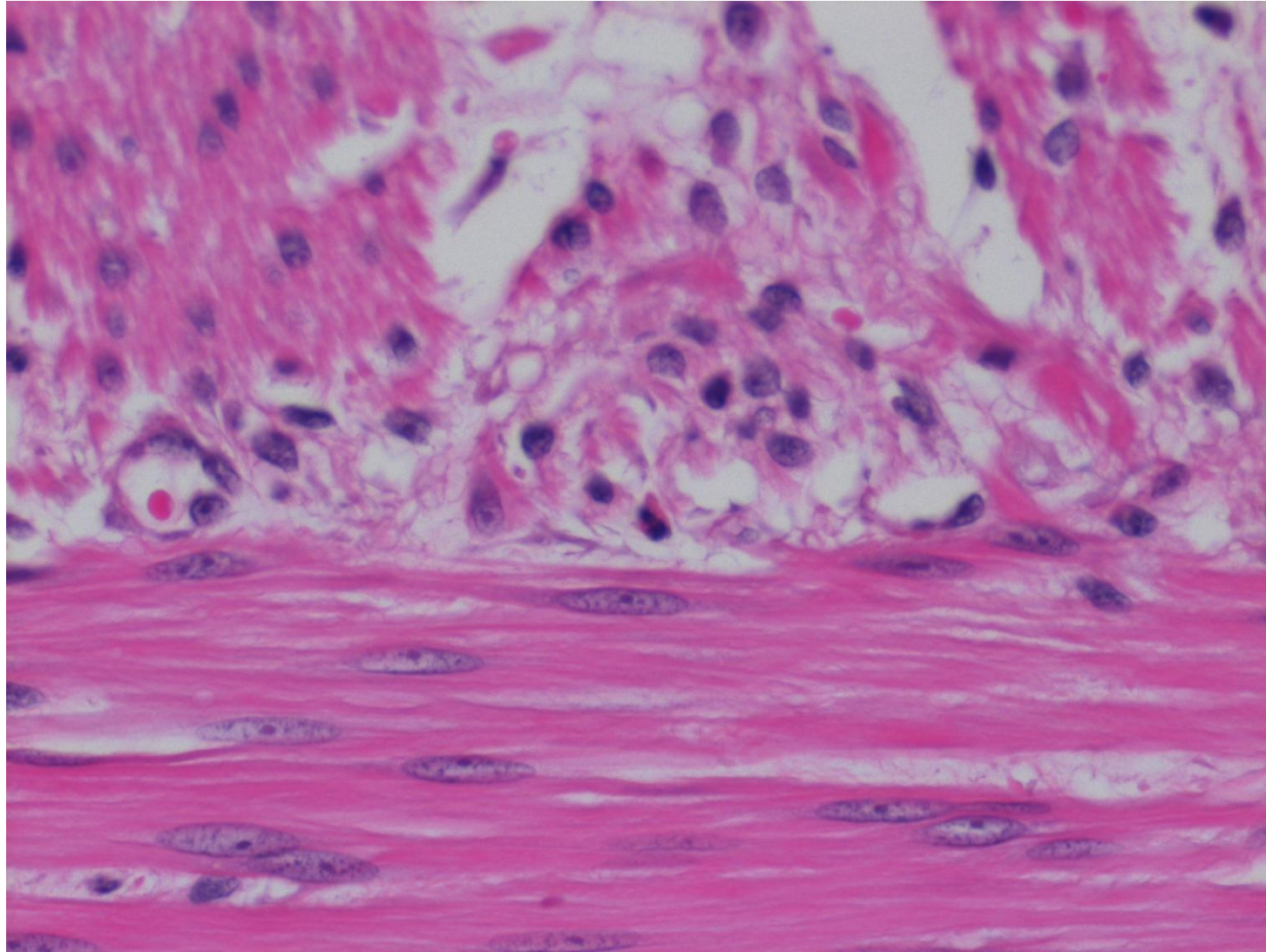
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals preserved expression of desmin in the disorganized inner circular layer of the muscularis propria. Compare with SMA. Immunostaining for desmin



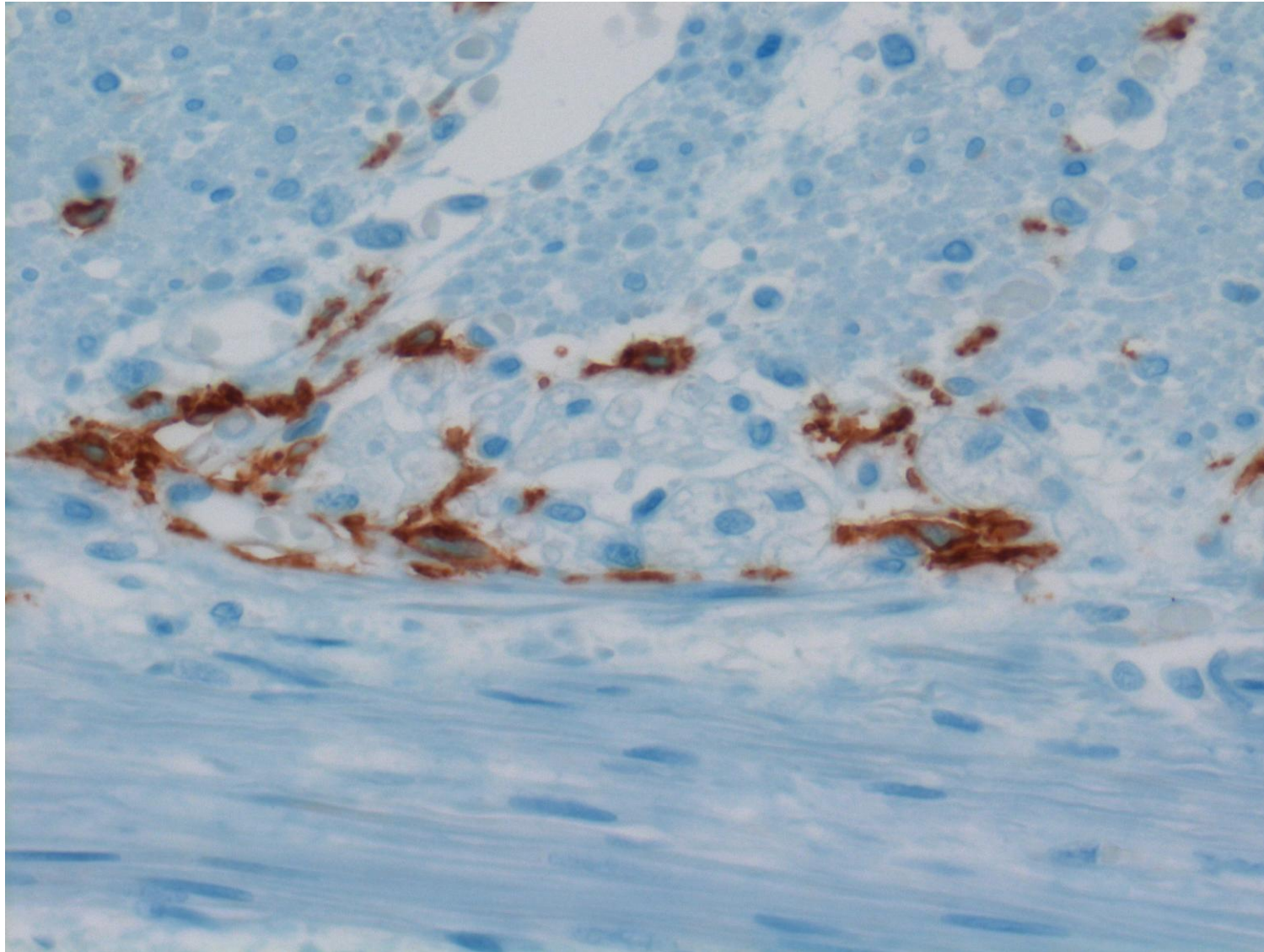
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals preserved expression of calponin in the disorganized inner circular layer of the muscularis propria. Compare with SMA. Immunostaining for calponin



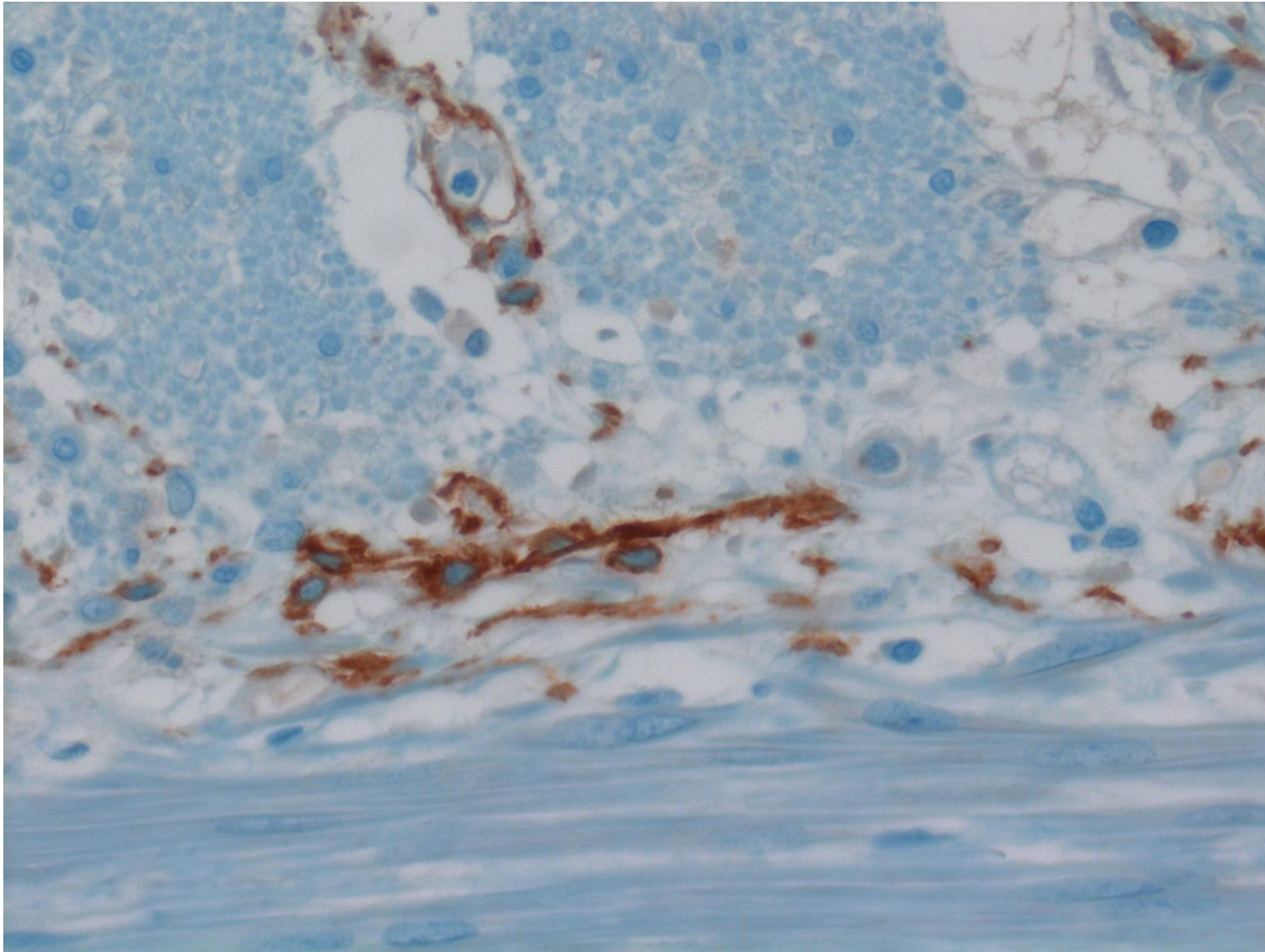
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals disorganization of the smooth muscle cells in the inner circular layer of the muscularis propria. Mononuclear cell infiltration is associated. H&E-2



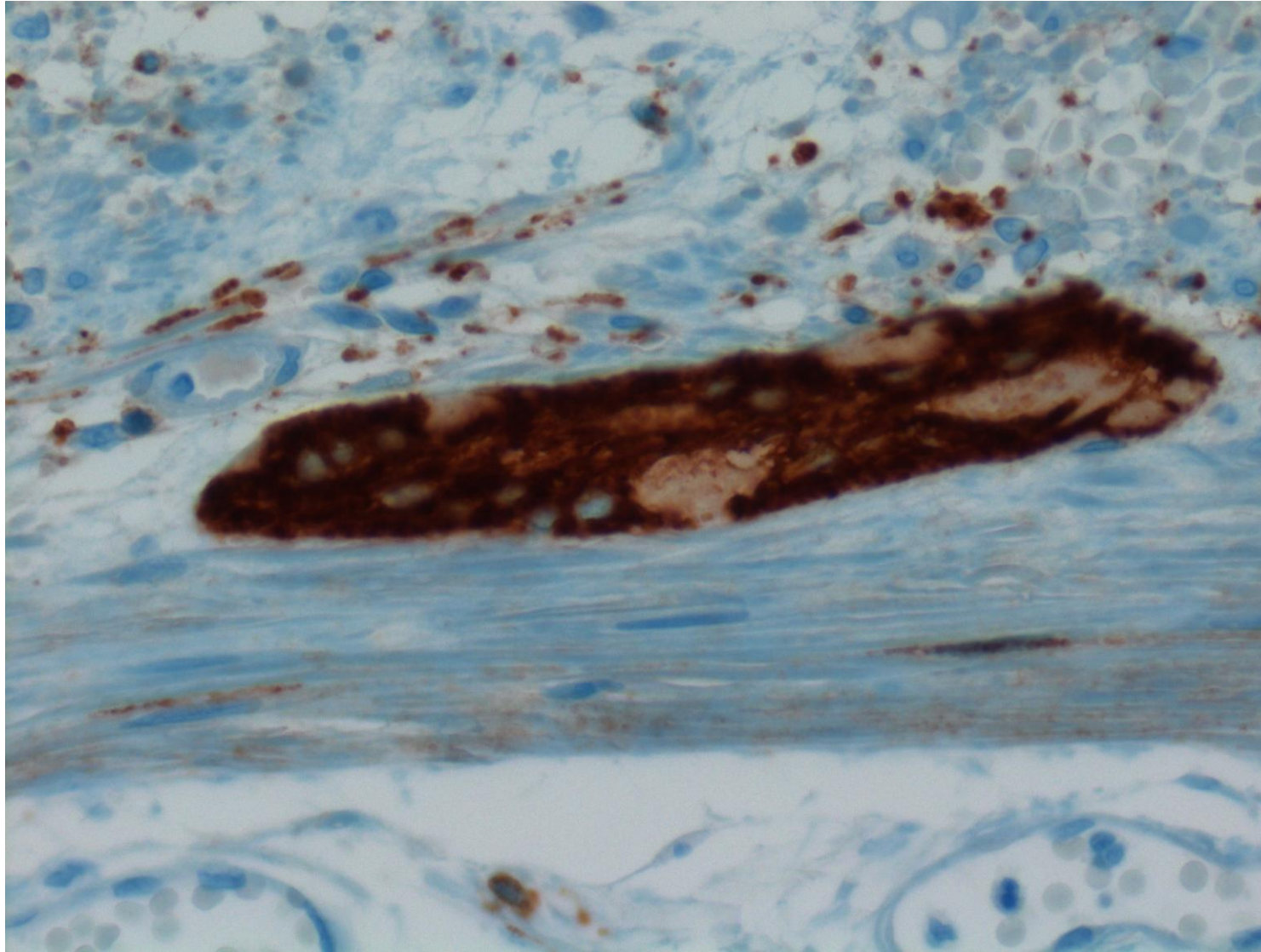
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals normal-looking Auerbach's myenteric plexus. H&E



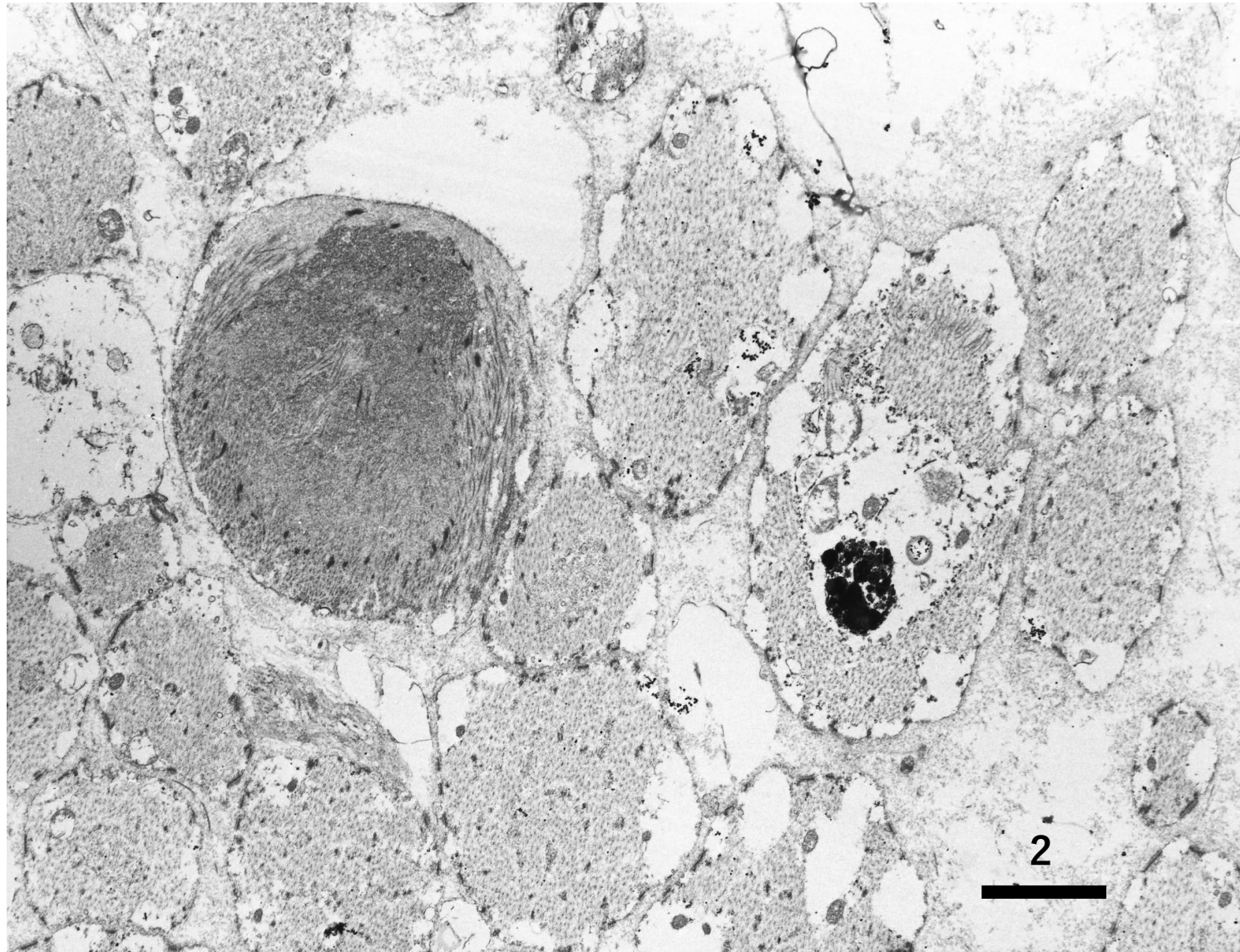
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals normal-looking Auerbach's myenteric plexus with DOG1-positive interstitial cell of Cajal. Immunostaining for DOG1



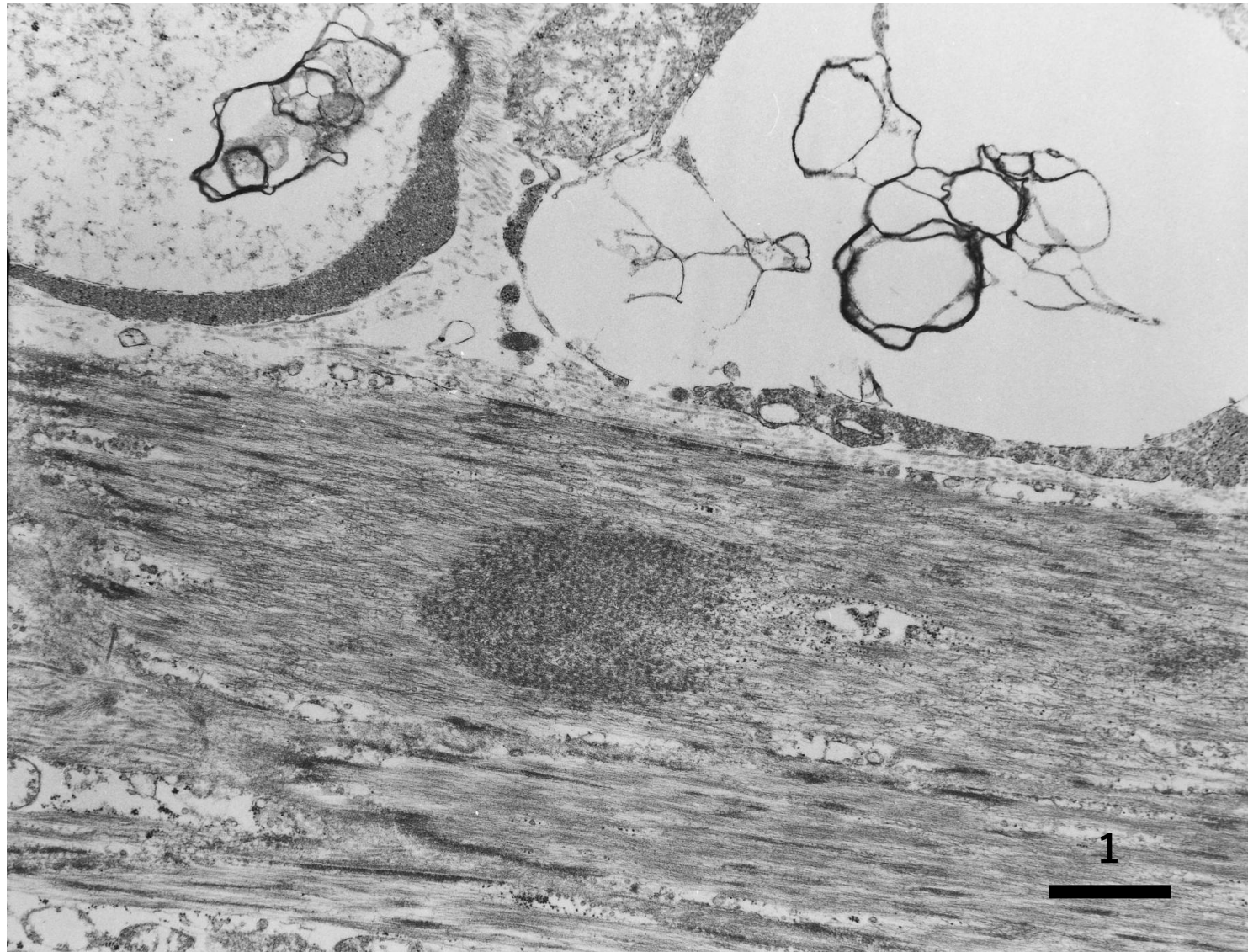
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals normal-looking Auerbach's myenteric plexus with c-kit (CD117)-positive interstitial cell of Cajal. Immunostaining for c-kit



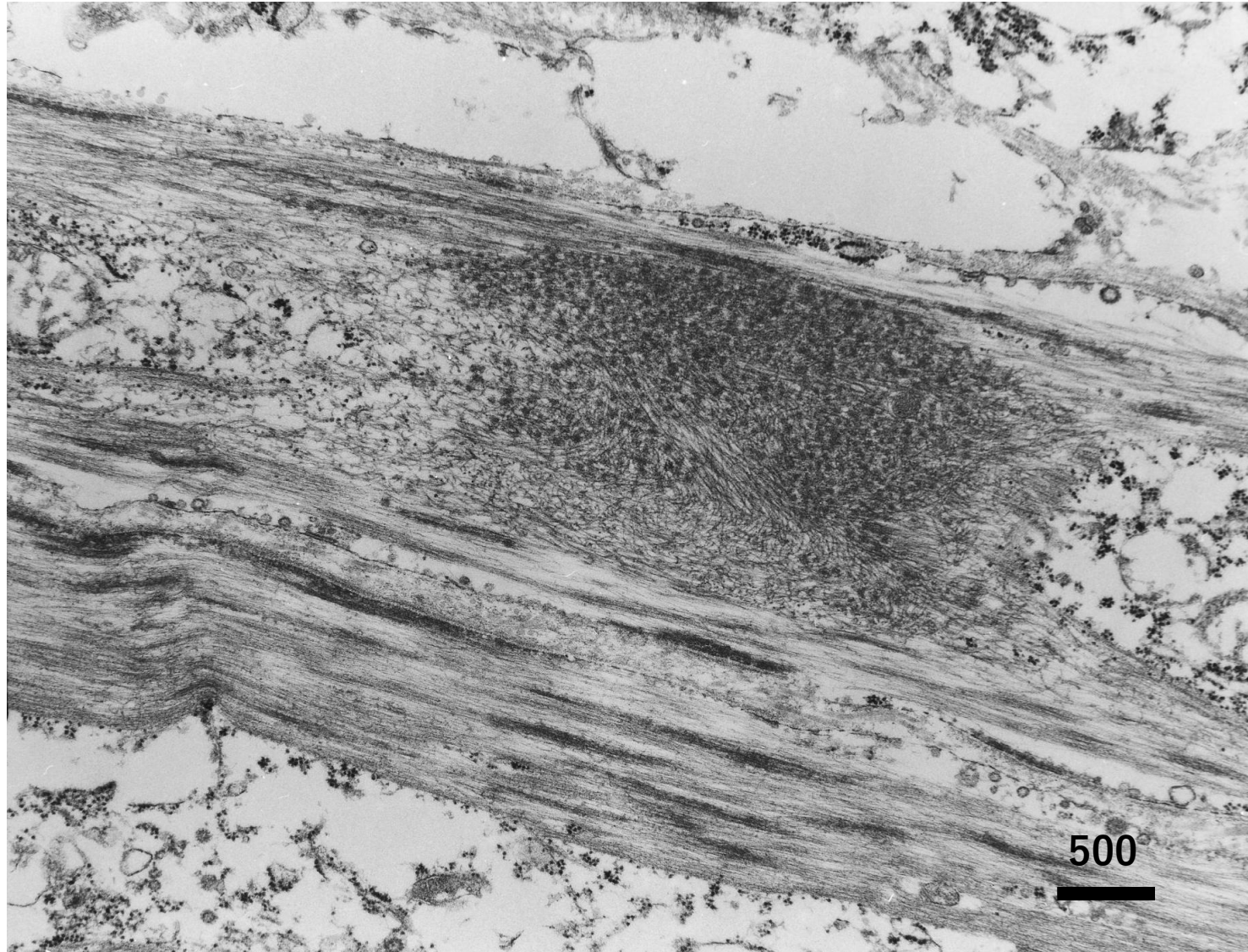
Hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. The surgically resected jejunum reveals normal-looking Auerbach's myenteric plexus with NCAM (CD56)-positive neural cell components. Immunostaining for NCAM



Ultrastructure of hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. Filamentous inclusion is observed in the cytoplasm of the deranged smooth muscle cell in the inner layer of the muscularis propria, probably reflecting actin abnormality in the smooth muscle cell. EM-1



Ultrastructure of hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. Filamentous inclusion is observed in the cytoplasm of the deranged smooth muscle cell in the inner layer of the muscularis propria, probably reflecting actin abnormality in the smooth muscle cell. EM-2



Ultrastructure of hollow visceral myopathy seen in a 68-year-old man presenting portal pneumatosis. Filamentous inclusion is observed in the cytoplasm of the deranged smooth muscle cell in the inner layer of the muscularis propria, probably reflecting actin abnormality in the smooth muscle cell. EM-3