

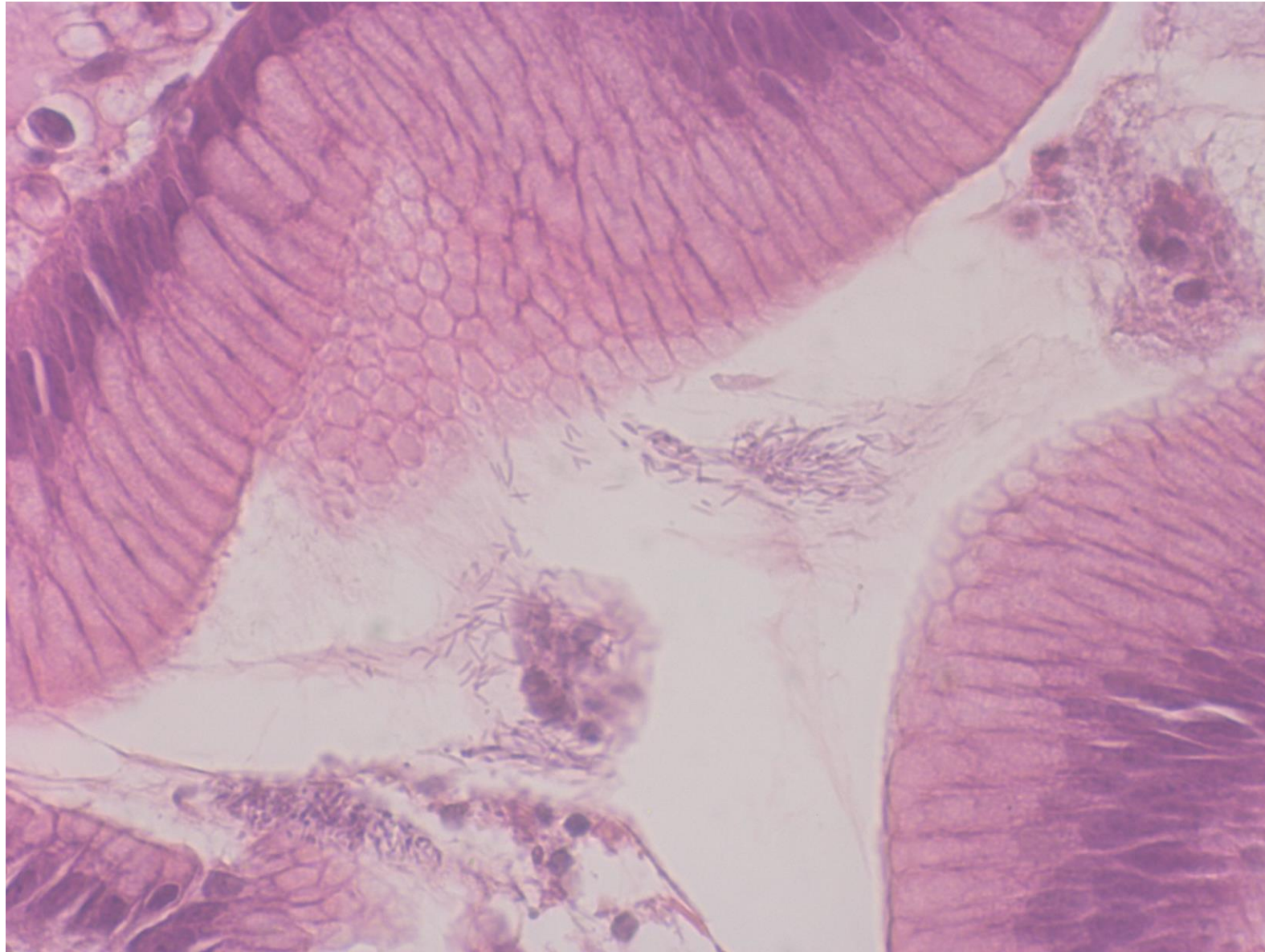
Immunostaining for *Helicobacter heilmannii* infection

Helicobacter heilmannii (previously called *Gastrospirillum hominis*) is a long tight spiral bacterium; thicker and twice as long as *H. pylori* and clearly visible with H&E stain. Inflammatory reactions are milder than those in *H. pylori*. *H. heilmannii* infection belongs to a zoonosis, and is often caused by a contact with farm animals or household pets. It is more common in children than in adults. It prefers to infect in the gastric antrum. In adults, it may be associated with mucosa-associated lymphoid tissue lymphoma. Polyclonal antibody against *H. pylori* cross-reacts, but the monoclonal antibody does not.

Ref.-1: Jhala D, et al. *Helicobacter heilmannii* gastritis: association with acid peptic diseases and comparison with *Helicobacter pylori* gastritis. Mod Pathol 1999; 12(5): 534-538. PMID: 10349993

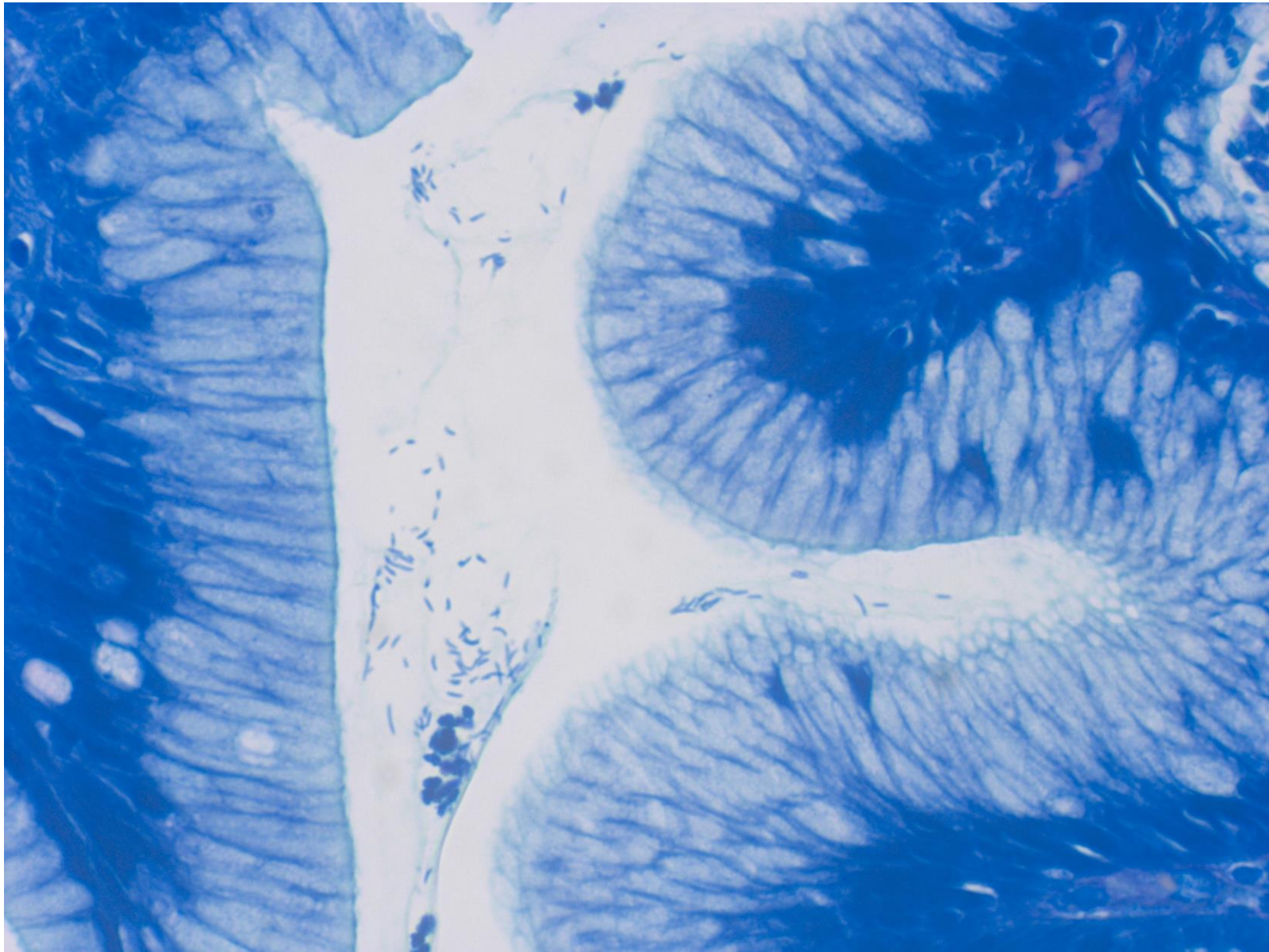
Ref.-2: Bento-Miranda M, Figueiredo C. *Helicobacter heilmannii* sensu lato: an overview of the infection in humans. World J Gastroenterol 2014; 20(47): 17779-17787. doi: 10.3748/wjg.v20.i47.17779

Case 1



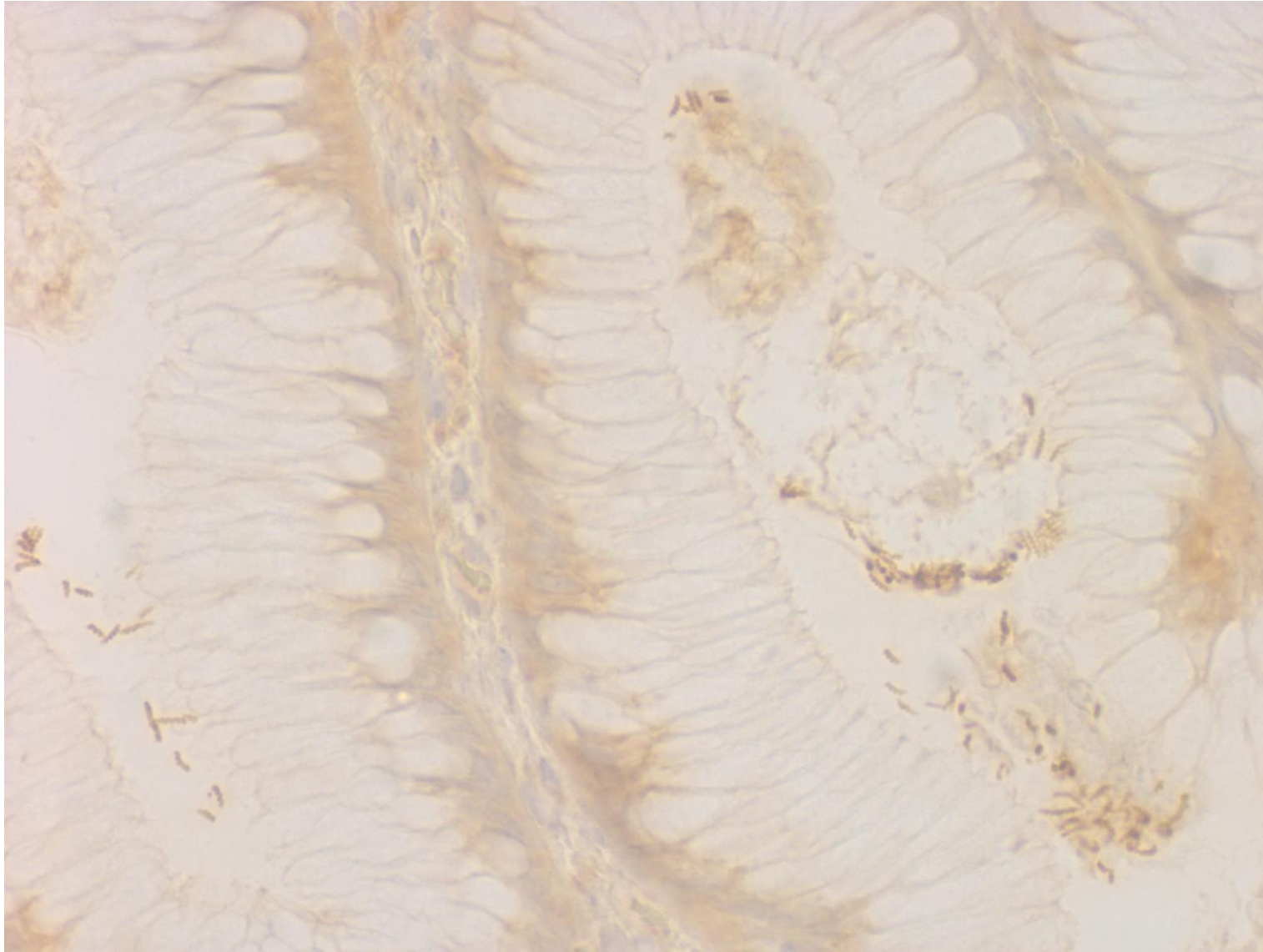
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*), are seen on the gastric mucosal surface (a 59-year-old man). H&E-1

Case 1



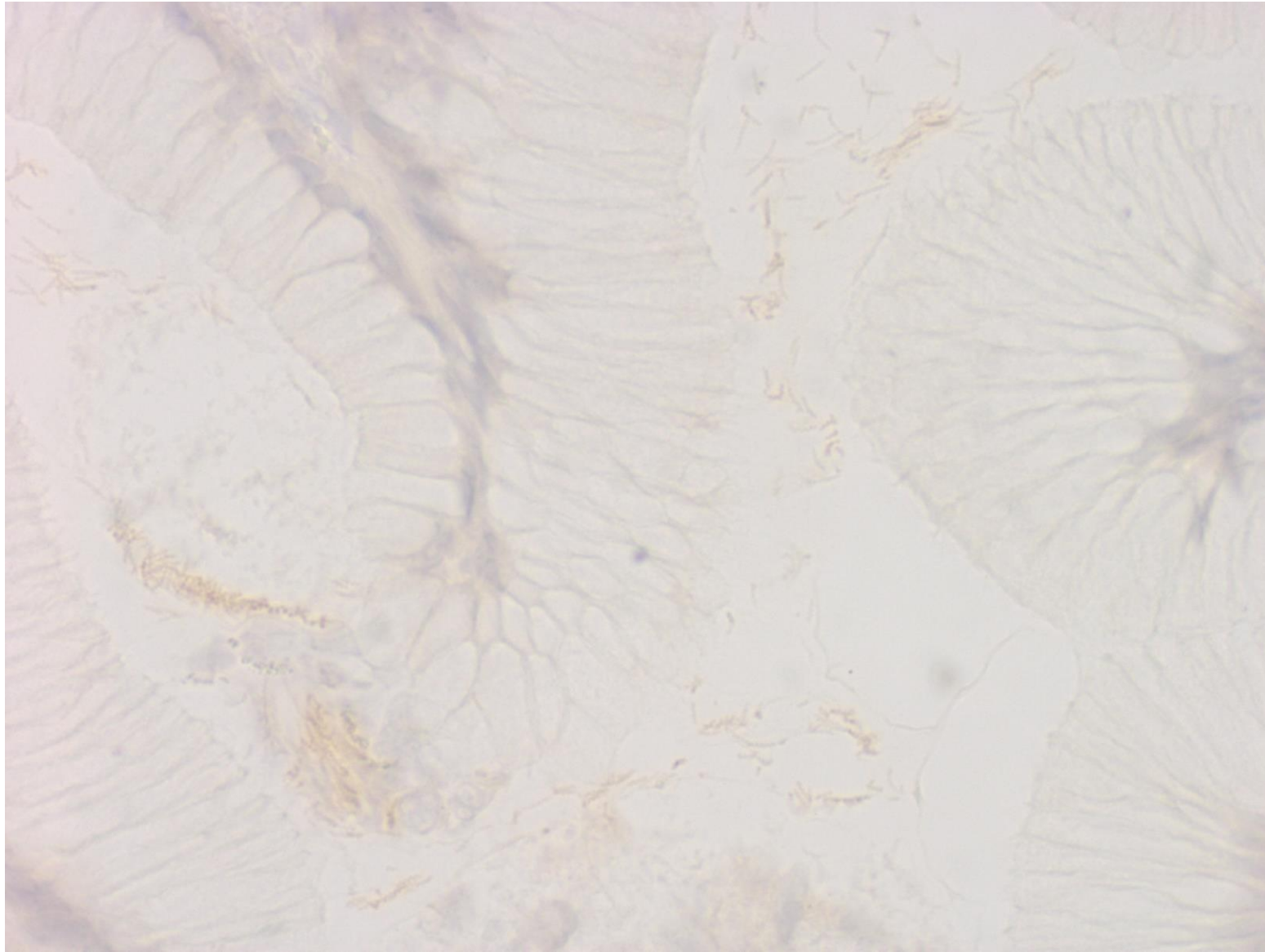
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*), are seen on the gastric mucosal surface (a 59-year-old man). Giemsa-1

Case 1



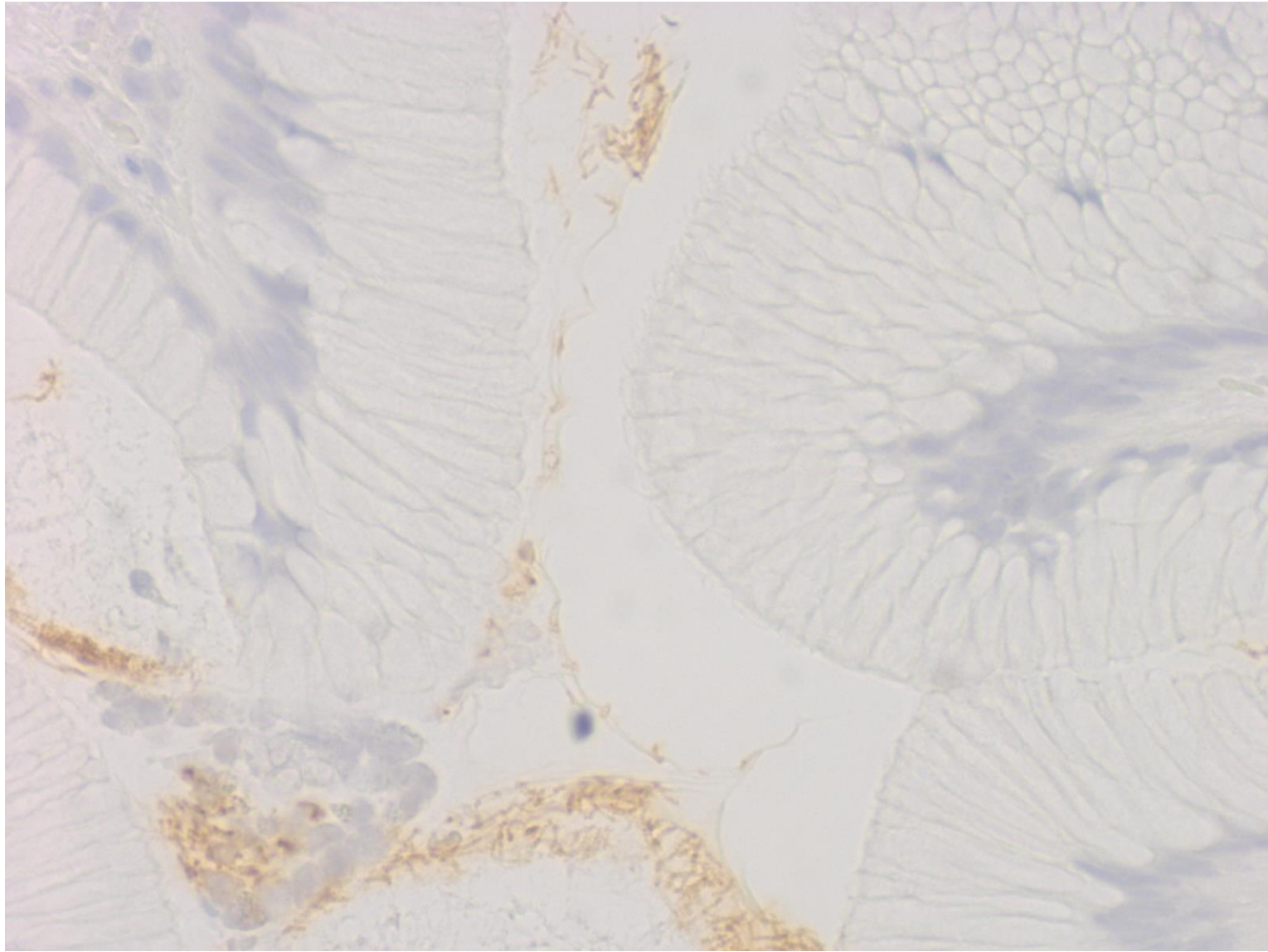
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are immunostained with antiserum against *H. pylori*. Immunostaining with antiserum against *H. pylori*-1

Case 1



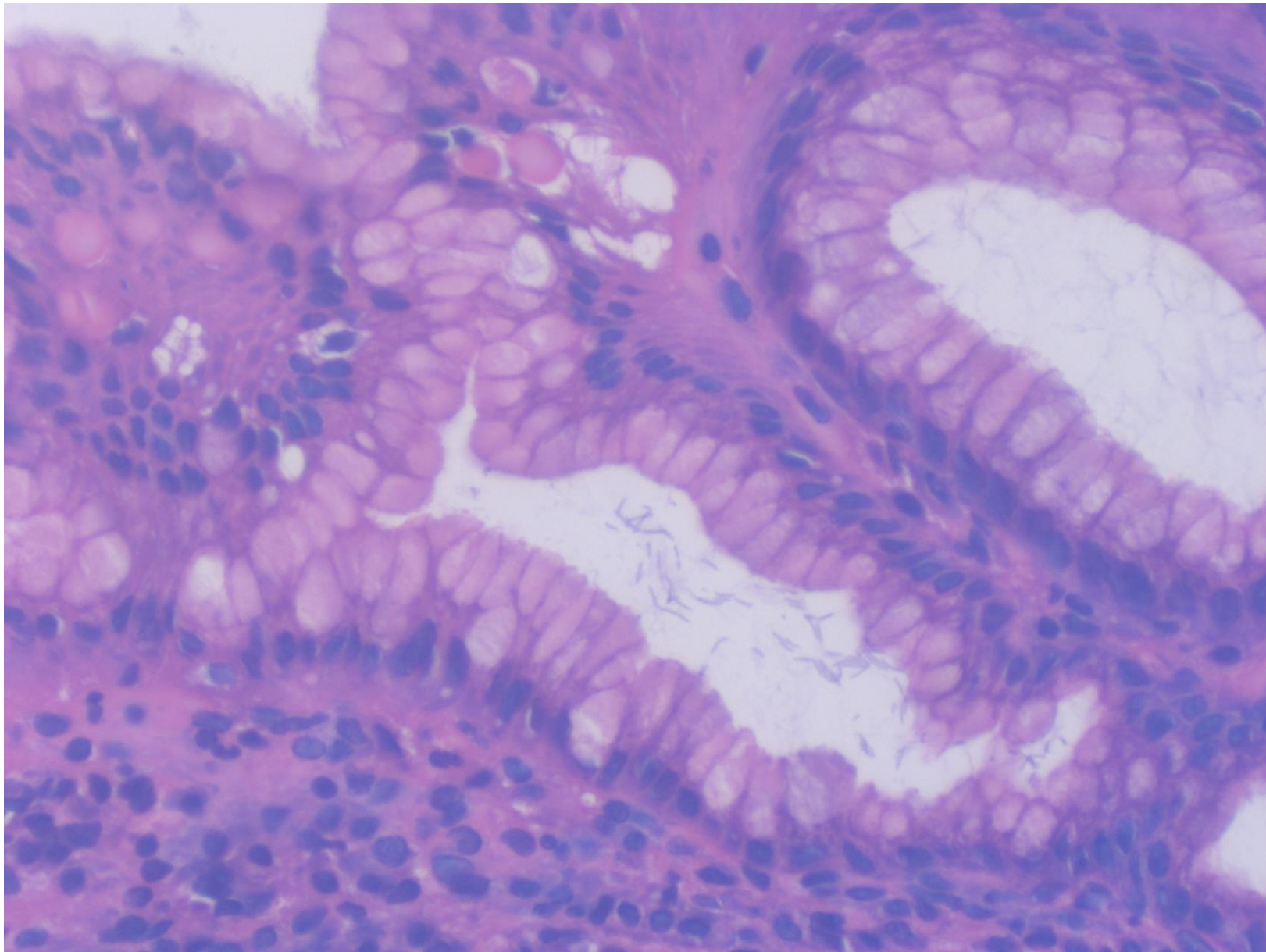
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are negative with a monoclonal antibody 4H3.2 against *H. pylori*. Immunostaining with monoclonal antibody against *H. pylori* 4H3.2 (1)

Case 1



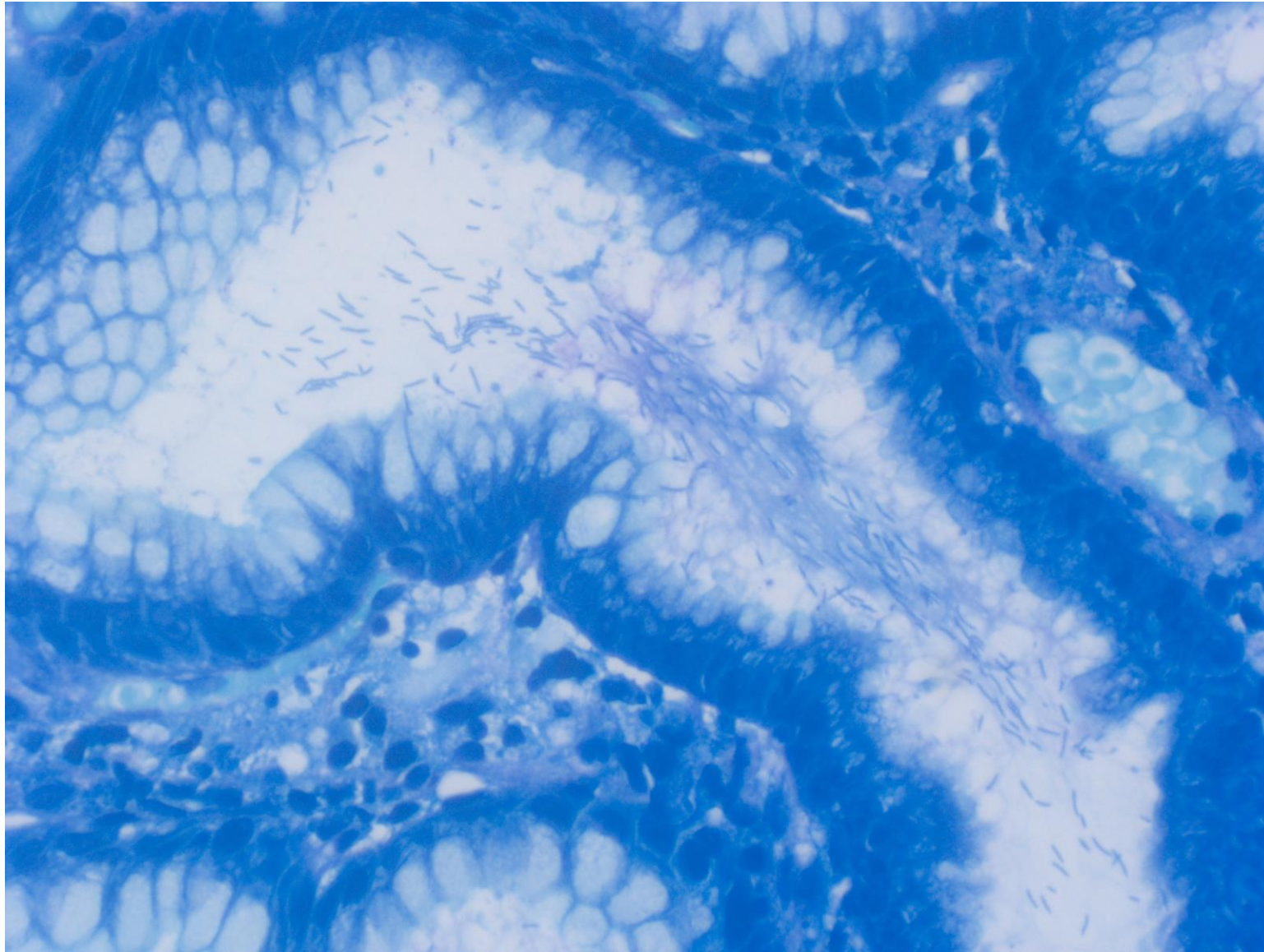
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are immunoreactive with a monoclonal antibody 371/254.55 against *Campylobacter jejuni*. Immunostaining with monoclonal antibody against *Campylobacter jejuni* 371/254.55 (1)

Case 2



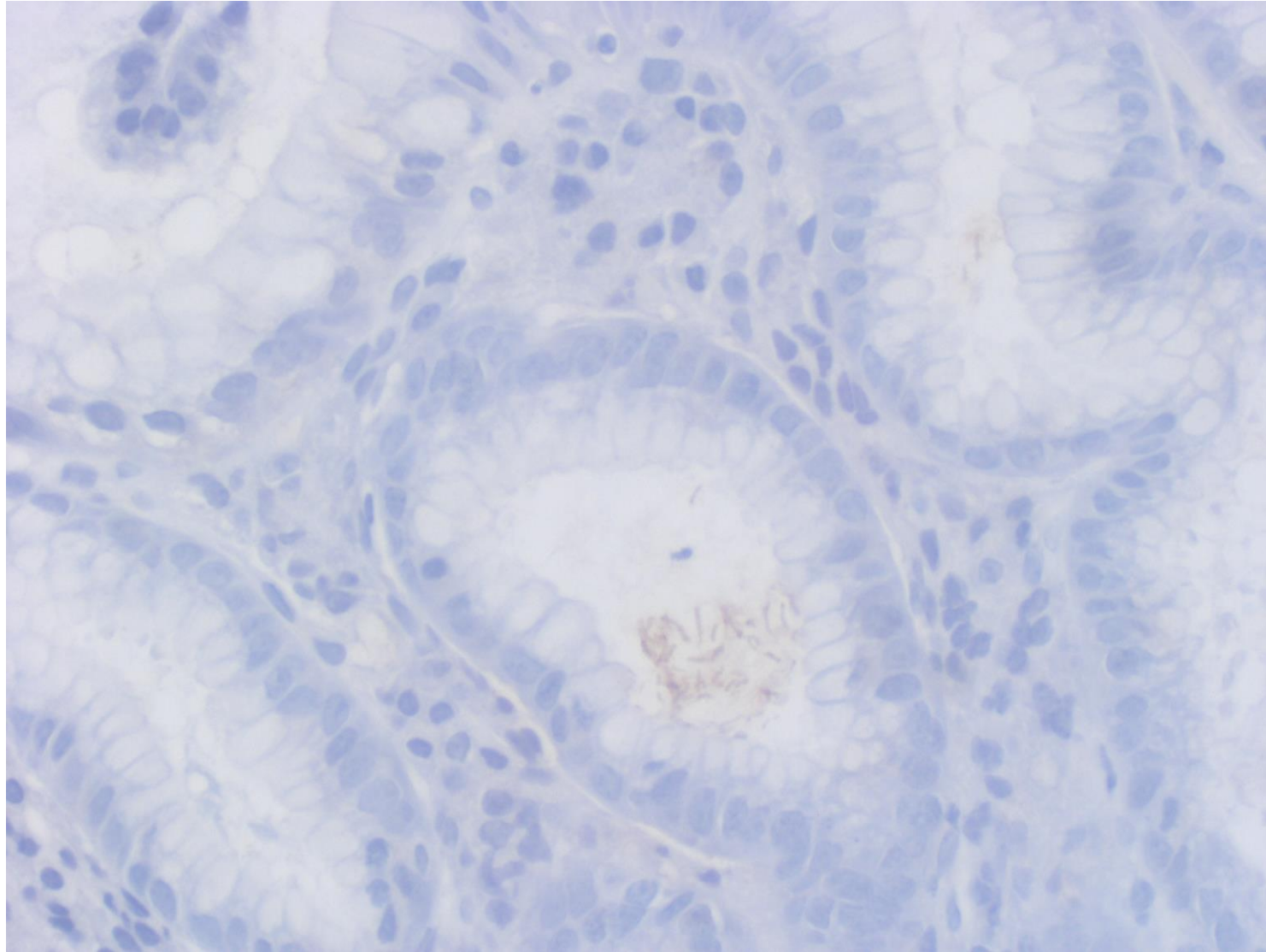
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*), are seen on the gastric mucosal surface (a 63-year-old woman). H&E-2

Case 2



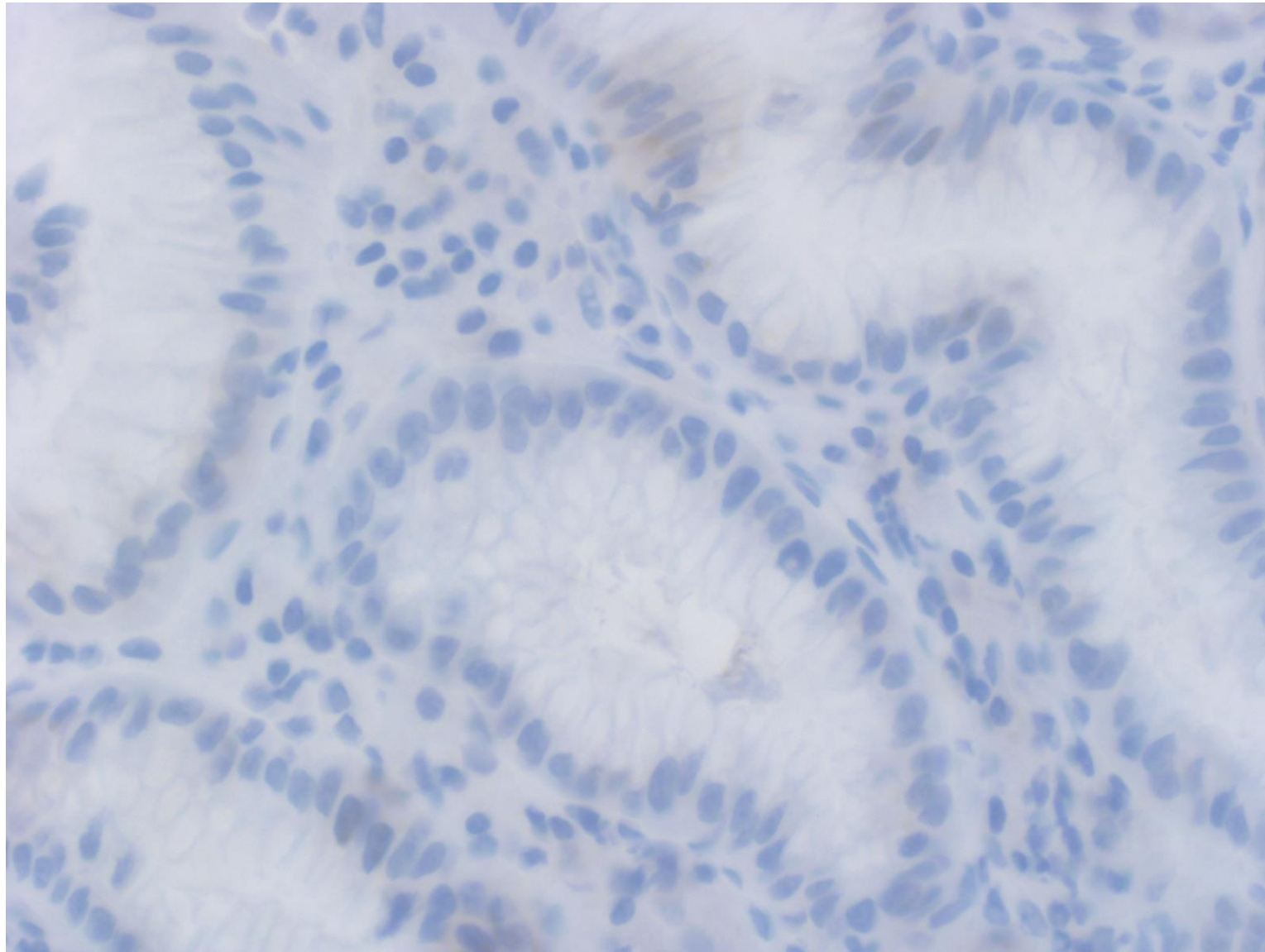
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*), are seen on the gastric mucosal surface (a 63-year-old woman). Giemsa-2

Case 2



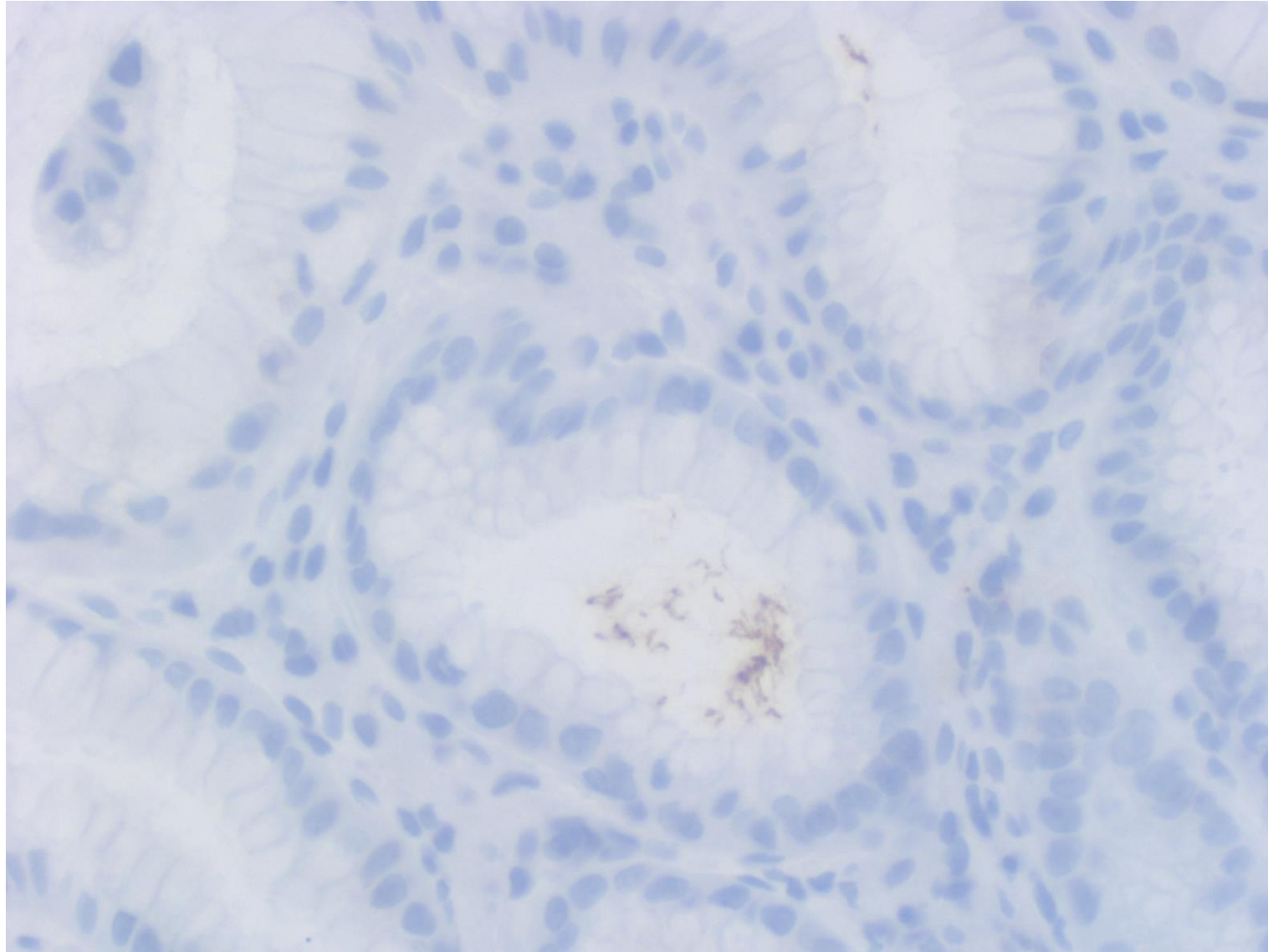
Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are immunostained with antiserum against *H. pylori*. Immunostaining with antiserum against *H. pylori*-2

Case 2



Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are negative with a monoclonal antibody 4H3.2 against *H. pylori*. Immunostaining with monoclonal antibody against *H. pylori* 4H3.2 (2)

Case 2



Large-sized (long-shaped) spiral bacteria, *Helicobacter heilmannii* (previously, *Gastrospirillum hominis*) on the gastric mucosal surface, are immunoreactive with a monoclonal antibody 371/254.55 against *Campylobacter jejuni*. Immunostaining with monoclonal antibody against *Campylobacter jejuni* 371/254.55 (2)