A Case of the Week

Case 428

A forty-eight-year-old male presented with epigastric pain. He had medical consultation in a local hospital. He was introduced to our hospital with diagnosis of suspicious gastroduodenal perforation based on CT (Figs. 1, 2). Laboratory test revealed that white blood cells 15300/mm3, CRP more than 7mg/L. He took abdomen CT in our hospital (Figs. 3-5).

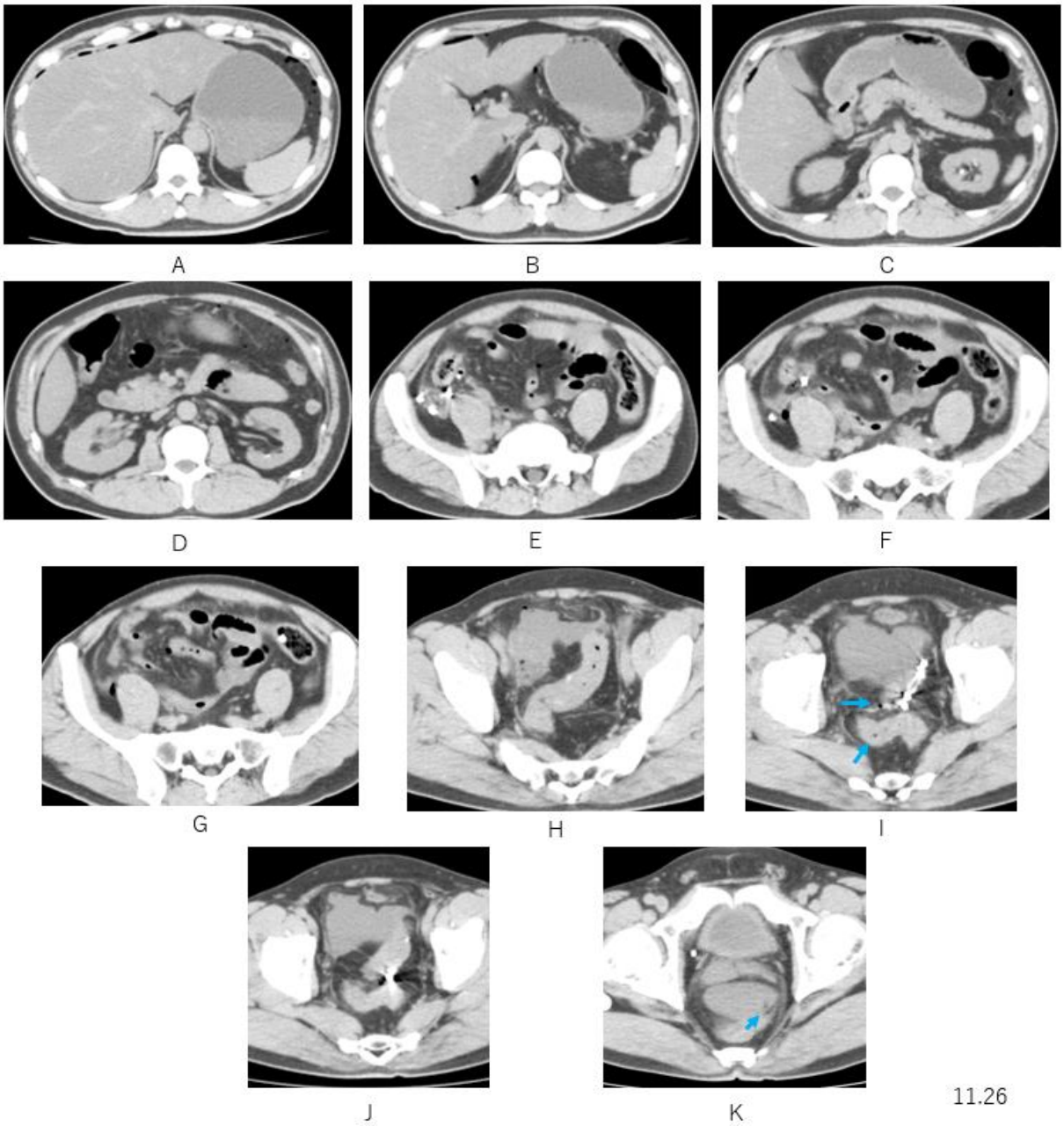

Fig.1 Free air in peritoneal spaces of subphrenic, Morrison pouch and mesenteric is depicted on axial CT (A-E).Ileum end and appendix are not swollen (F, G). Ascites with minute air bubbles are depicted (H, I, K). Note air retention by barium attenuation in sigmoid venticule is depicted (J).

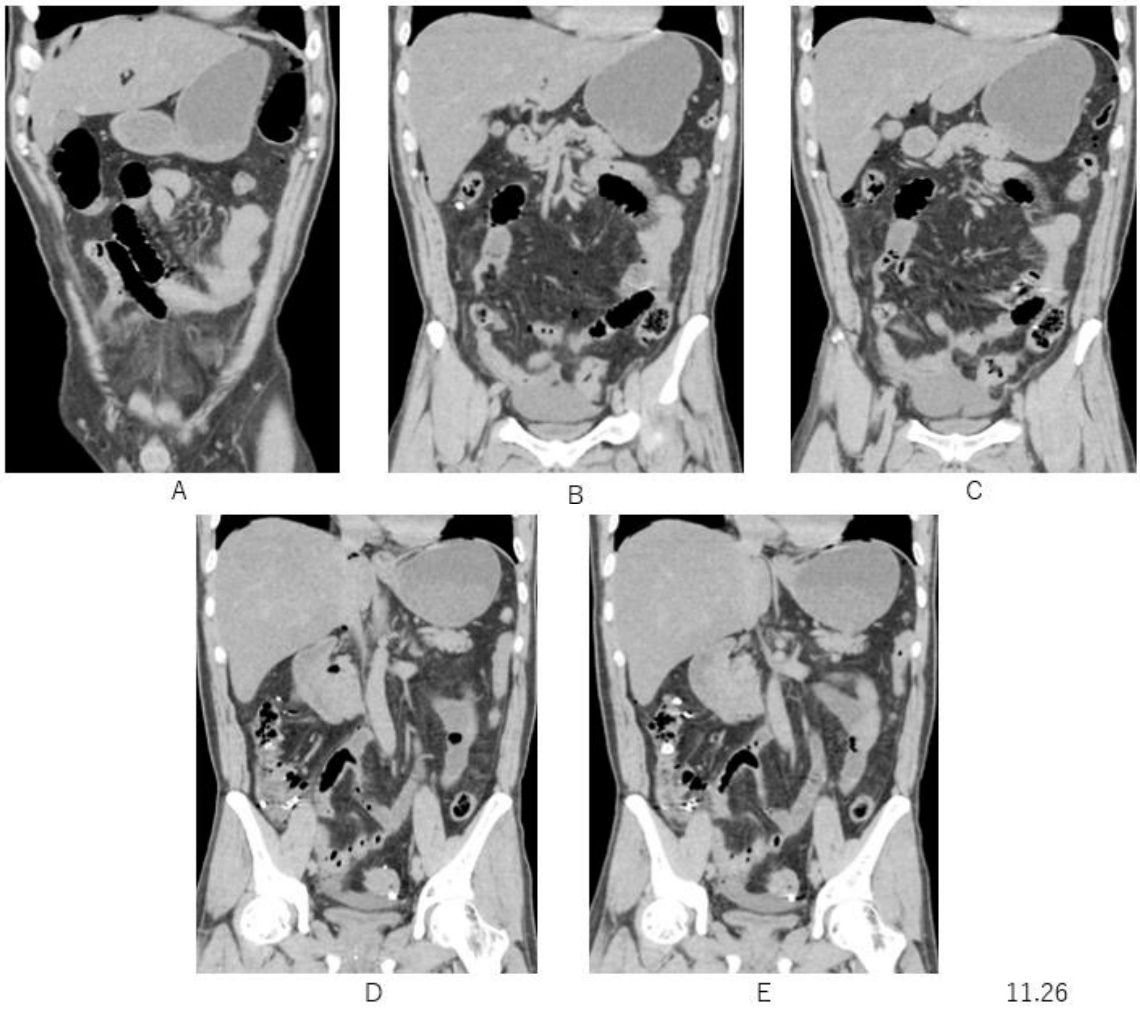

Fig.2 Free air in spaces of subphrenic, subhepatic and mesentery is depicted on coronal CT (A-C). Ileum end and appendix are not swollen (D, E). Ascites to arise rom sigmoid colon is depicted (D, E). Note air retention by barium attenuation in sigmoid venticule is depicted (E).

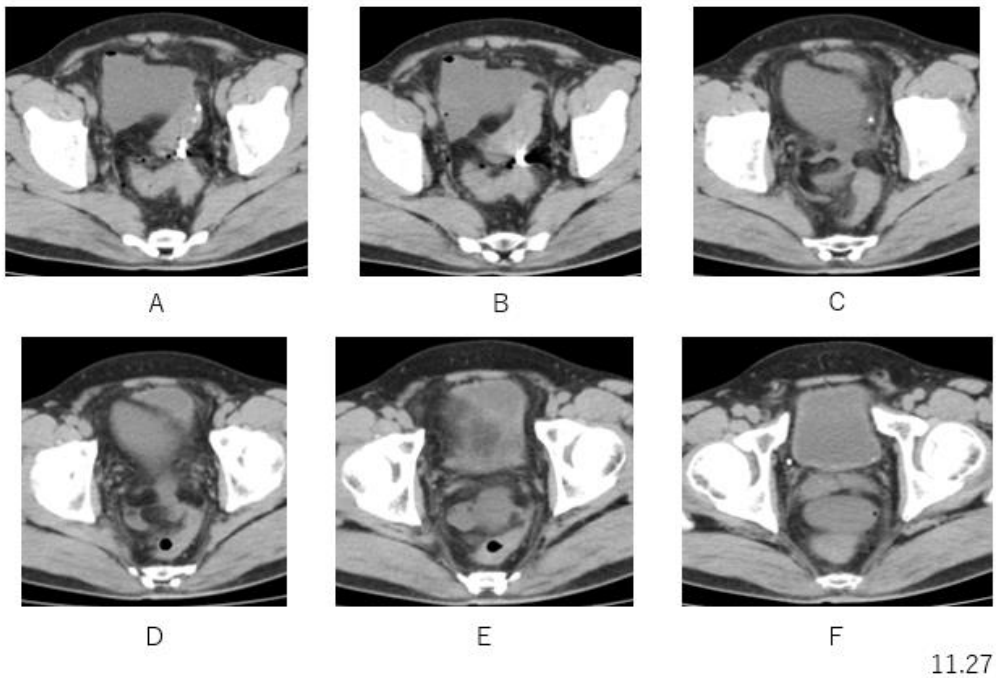

Fig. 3 Following day, Ascites including free air are depicted in peritoneal space (A, B), Duglas pouch (E, F)and adjacent with barium attenuation (B) at sigmoid colon. There is a communication of ascites between peritoneal space and Douglas Pouch (C-E).

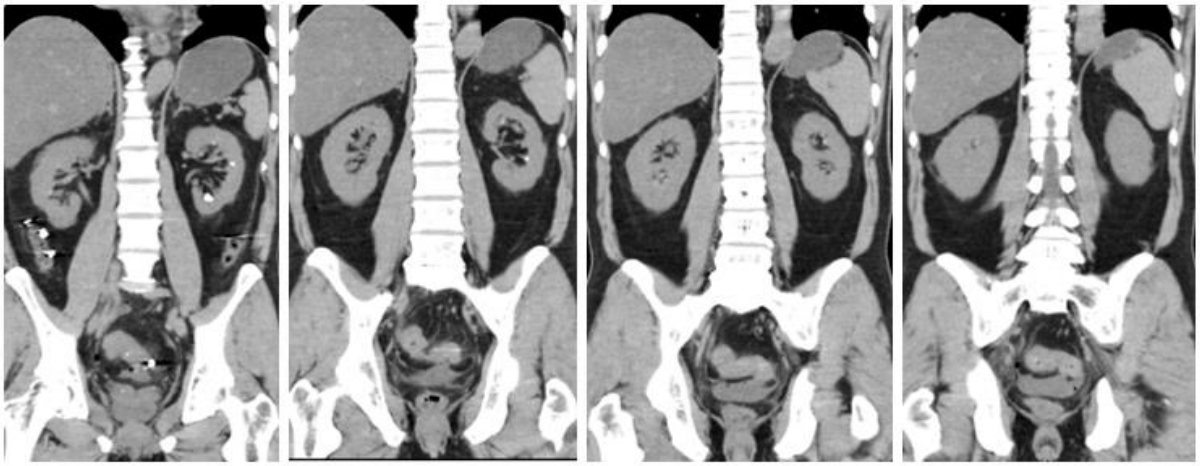

Fig.4 Following day, free air is depicted adjacent with barium attenuation at sigmoid colon(A) and Dougla pouch (B, C, D)at sigmoid colon.

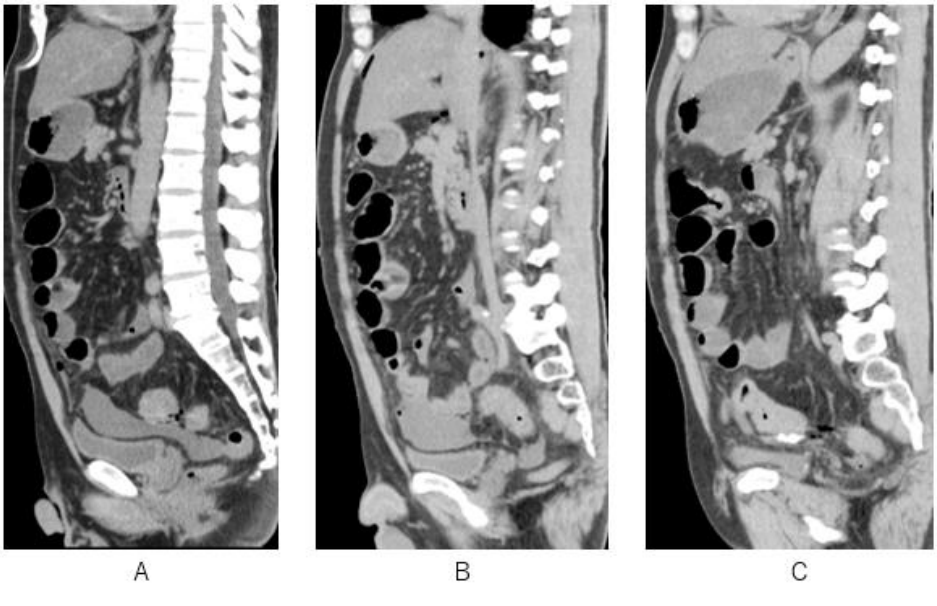

Fig.5 Following day, there is a communication route of ascites between peritoneal space and Dougla pouch (A). Free air is depicted in peritoneal space (B) and Dougla pouch (C).

From what part of digestive organ generates free air?

1. **Stomach**
2. **Duodenum**
3. **Appendix**
4. **Cecum**
5. **Sigmoid colon**

answer

2026.4.3