

A Case of the Week

Case 444

A seventy-four-year-old male presented with abdominal pain. He experienced persistent abdominal pain after ingestion of lunch. The abdominal pain gradually worsened, falling into the situation to make him unable to walk. Then, he called an ambulance. Medical findings revealed GCS, E4V5M6, blood pressure 192/75 mmHg, pulse 64/mm, respiration rate 16/min SpO2 100%. He took abdomen CT including enhanced CT using contrast medium (Figs 1-6).

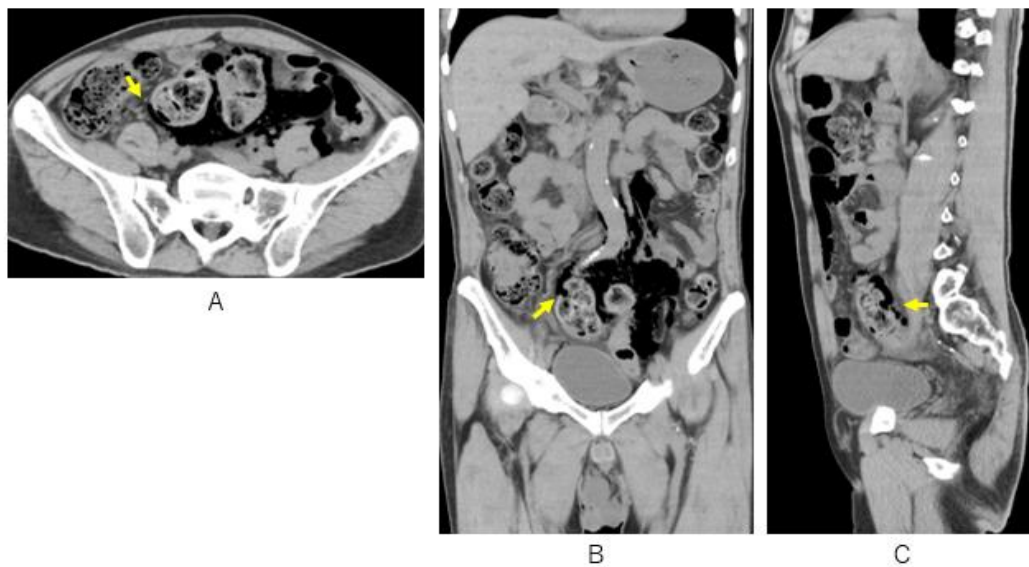
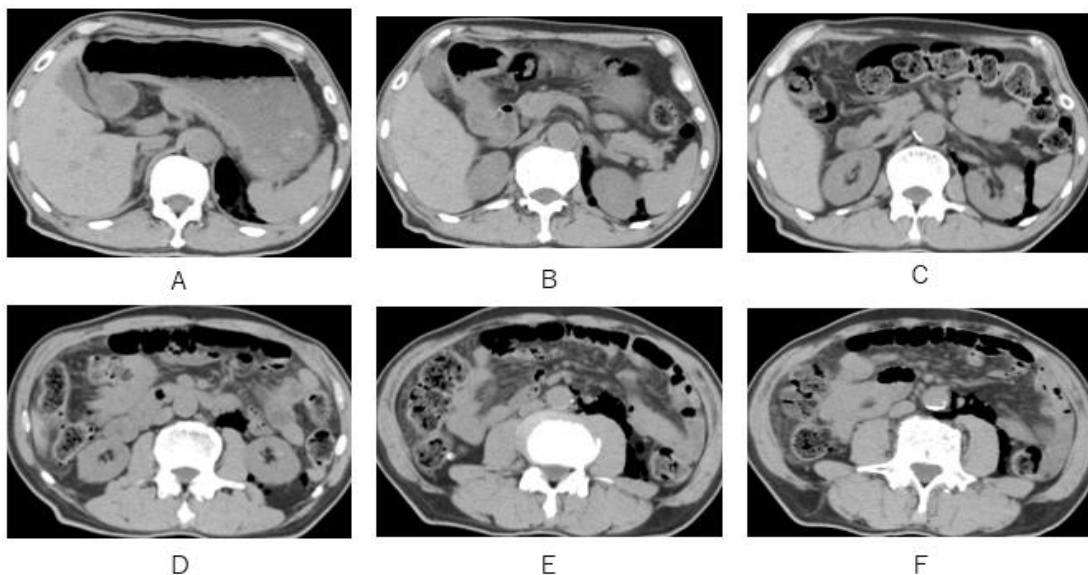


Fig.1 Perforation site of the sigmoid colon is depicted on axial, frontal and sagittal images.



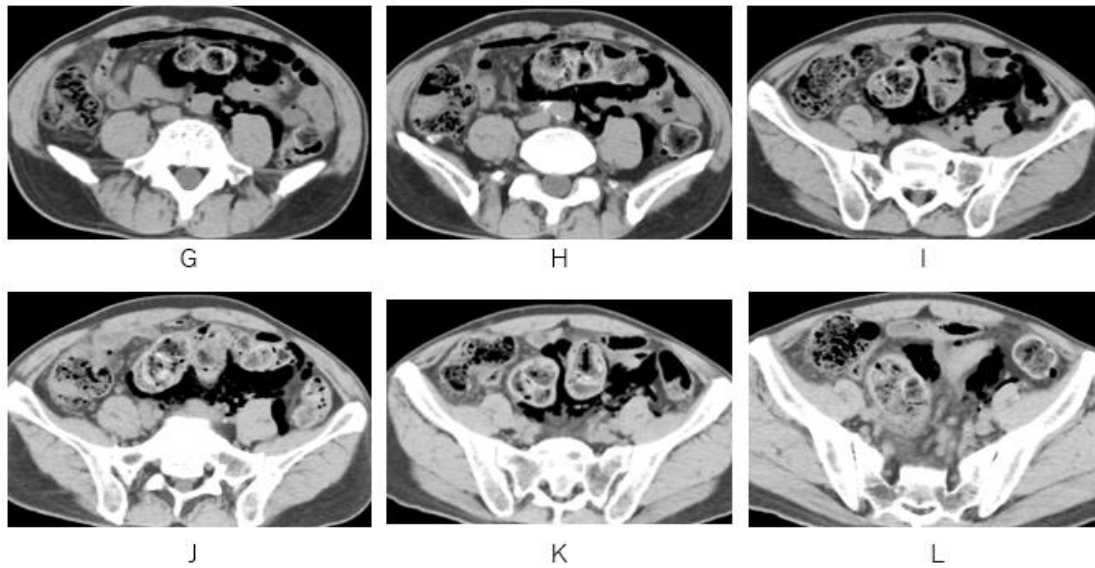


Fig.2 Free air bubbles in left perirenal space, posterior pararenal space and anterior psoas muscle space are depicted on axial images(A-D). Free air bubbles are depicted in peri-IMA spaces and para-aortic spaces are demonstrated (E, F). Gas bubbles are depicted around sigmoid colon and spaces of para-abdominal aorta, para-inferior mesenteric vessels, peri- left psoas muscle (G-L).

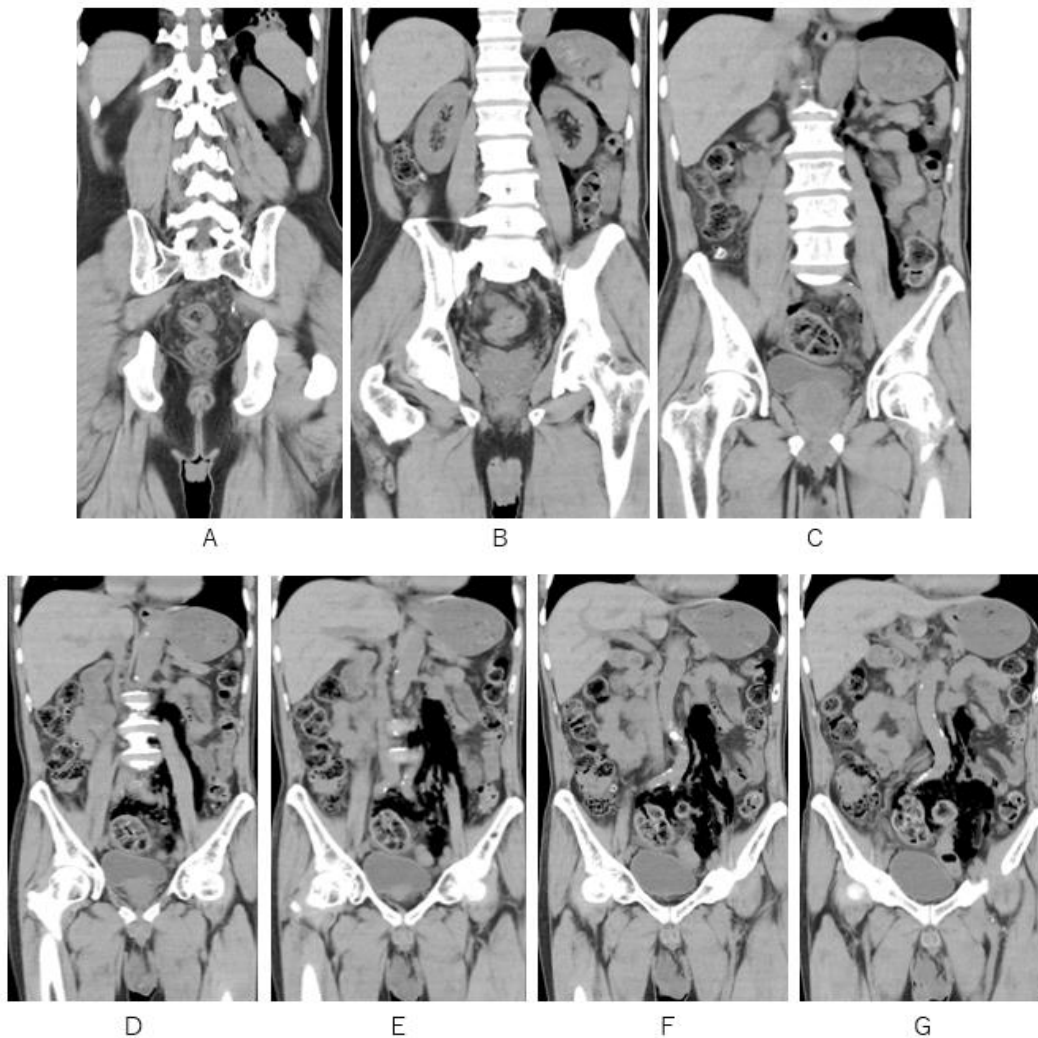


Fig.3 Gas bubbles from left perirenal spaces to peri-psoas muscle spaces (A-C) are depicted on coronal CT. Gas bubbles of peri-psoas muscle spaces communicate with gas bubbles around para-abdominal aorta spaces, ascending from gas bubbles from intra-sigmoid colon mesentery via peri-inferior mesenteric vessels (D-G). Gas bubbles reach left common iliac vessels space.

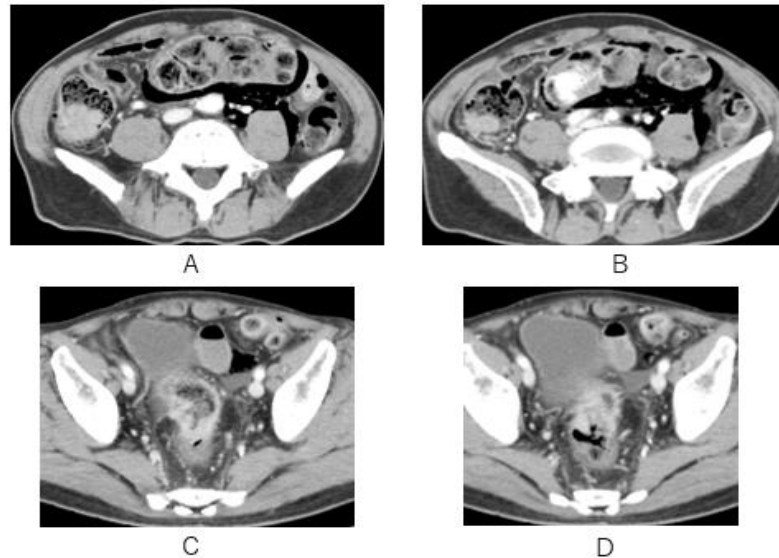


Fig. 4 A large mass in the cecum to ascending colon (A), extravasation of contrast medium (B), and rectal cancer with apple core sign that induces sigmoid colon perforation (C), are depicted on axial contrast-enhanced CT.

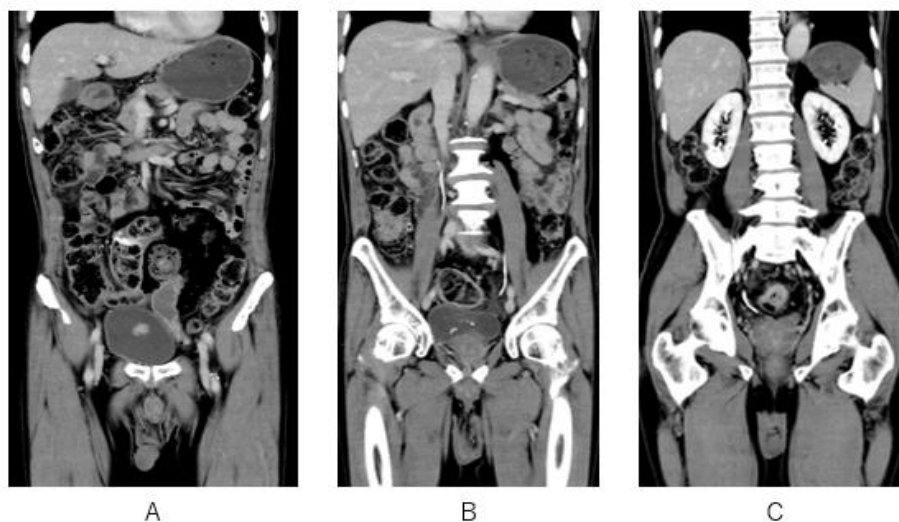


Fig. 5 Extravasation of contrast medium (A), a large mass in the cecum to ascending colon (B), and rectal cancer with apple core sign that induces sigmoid colon perforation (C), are depicted on coronal contrast-enhanced CT.

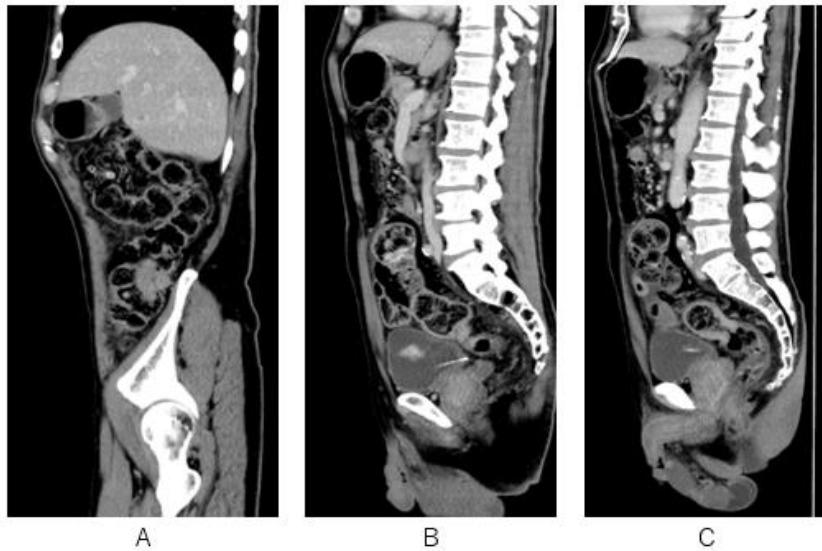


Fig. 6 A large mass in the cecum to ascending colon (A), contrast medium of urine(B), and rectal cancer with apple core sign that induces sigmoid colon perforation (C), are depicted on sagittal contrast-enhanced CT.

What is the imaging diagnosis?

1. Pneumatosis intestinalis
2. Sigmoid colon perforation with colon diverticulitis
3. Sigmoid colon perforation with colon cancer
4. Appendicitis with perforation

answer

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