

## Medical Imagery

## Pneumoperitoneum Caused by Pneumatosis Cystoides Intestinalis



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An 87-year-old woman presented with abdominal pain for one day. Physical examinations disclosed mild low abdominal tenderness, without rebounding pain or muscle guarding. Abdominal computed tomography (CT) scan showed pneumoperitoneum and pneumatosis intestinalis (Fig. 1A, white arrows) over cecum and ascending colon. Under the impression of ischemic bowel disease with bowel perforation, exploratory laparotomy was done. During operation, gas bubbles (white arrow head) and subserosal gas bubbles (white arrow) on the surface of the colon were found (Fig. 1B). Otherwise, there was no evidence of ischemia bowel disease, and hollow organ perforation. Therefore, the diagnosis of pneumatosis cystoides intestinalis was made and the midline lap-

arotomy wound was closed. Despite the post-operative course was complicated with acute myocardial infarction, the patient was smoothly discharged sixteen days later.

Pneumatosis cystoides intestinalis is a rare condition which characterized by the presence of multiple air-filled blebs in the subserosal and submucosal of the intestinal wall<sup>1</sup>. Most of the time, the patients with pneumatosis cystoides intestinalis remain asymptomatic, and only require conservative treatment. However, it may also present as pneumoperitoneum or obstruction<sup>1,2</sup>. Like the present case, it is difficult to differentiate the pneumoperitoneum caused by the rupture of a subserosal air cyst or from visceral perforation. In this rare condition, conservative treatment or surgical intervention remains a challenge for the clinicians, especially when the clinical symptoms are moderate.

## References

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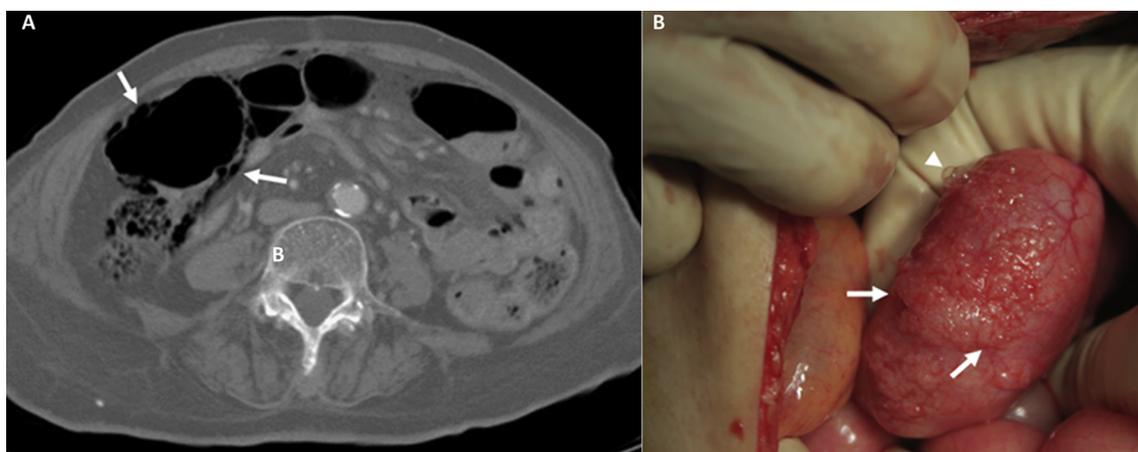


Fig. 1. (A) Computed tomography of abdomen showed pneumatosis intestinalis sign (white arrows) over cecum and ascending colon, (B) gas bubbles (white arrow head) and subserosal gas bubbles (white arrow) on the surface of the colon during operation.

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