

中文題目：腸壞死併發嚴重肝門靜脈氣體

英文題目：Massive hepatic portal venous gas complicating of Intestine necrosis

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## Case Report

A 76-year-old woman presented to our hospital initially with type B aortic dissection related out-of-hospital cardiac arrest, and she received thoracic endovascular aneurysm repair (TEVAR) after the resuscitation. During hospitalization, septic shock with hypovolemic shock developed. We ever arranged colonoscopy due to frequent bloody stool which revealed suspected colon cancer over previous anastomosis site, thus biopsy of 8 sites was done. However, shock still progressed, accompanied with severe abdominal distension. We arranged emergent abdominal computer tomography which revealed gases in superior mesenteric vein (SMV), portal vein, and intrahepatic portal vein branches (Figure 1), gases in intestinal wall, consistent with intestine necrosis with pneumatosis intestinalis (Figure 2). We did not perform operation under family's will. The patient was expired 2 days later.

Air in the portal system, as known as portal venous gas, or hepatic portal venous gas (HPVG), was described first by Wolfe and Evens in infants with necrotizing enterocolitis [1]. The mechanism of HPVG is not well understood. Theories included (1) microbe-derived gas production and (2) absorbed intraluminal air [2]. The etiology may be explained by mesenteric thrombosis with intestinal necrosis, which is also the most important diagnosis needed to be excluded [3]. In our case, intestine necrosis with pneumatosis intestinalis was found, which is associated with a high mortality rate that ranges from 75% to 90% of cases [4] and necessitated urgent laparotomy. Some less common causes of HPVG that was reported included diverticulitis, gastric dilatation or gastric emphysema [5], inflammatory bowel diseases [6], the early postoperative period after liver transplantation [7], and even a result secondary to pneumatosis intestinalis in a patient who received irinotecan and cisplatin [8]. As the imaging techniques advanced, we could diagnose the severe condition earlier, such as ischemic bowel. As a result, we could treat the patient in the earlier stage and reduce mortality rate.