中文題目:成功治療腹主動脈瘤破裂的老人,以非傷寒沙門氏菌血症初期臨床表現 英文題目: Case report: Successful treatments from abdominal aortic aneurysm rupture in one old man initially presenting with non-typhoid *Salmonella* bacteremia 作者: 方華珍<sup>1</sup>,陳甫綸<sup>1,2</sup>,李紹榕<sup>3,4</sup>,李文生<sup>1,2</sup>,歐聰億<sup>1,2</sup> 服務單位: 台北醫學大學萬芳醫院<sup>1</sup>內科部;<sup>2</sup>感染科;<sup>3</sup>外科部;<sup>4</sup>心臟血管外科

## Introduction:

Infectious abdominal aortic aneurysms often present with abdominal and lower back pain, but prolonged fever may be the only symptom. The typical causative bacteria for infectious abdominal aortic aneurysms are non-typhoid *Salmonella* and *Staphylococcus aureus*. Primary infected aortic aneurysm is a rare and lifethreatening disease, and has an extremely high mortality rate without surgery. Timely surgical intervention and prolonged intravenous antibiotic therapy resulted in excellent outcomes. Although there are rare reports of patients survival following contained rupture of abdominal aortic aneurysm. This is one reported survival case of a patient with an abdominal aortic aneurysm rupture initially presenting with non-typhoid *Salmonella* bacteremia.

## Case Report:

This 75-year-old male patient is with history of type 2 diabetes mellitus, hypertension and old ischemia stroke. This time, he suffered from fever with chills for 1 day, and recently body weight loss 20kg. Due to consciousness disturbance, he was brought to local hospital on first day and then transferred to our emergent department for help on the second day. Abdomen and pelvic computer-tomography scan without contrast medium was performed immediately at our emergent department owing to his septic shock and preliminary report of Gram-negative bacilli bacteremia from previous hospital. The computer-tomography scan revealed abdomen aortic aneurysm (51mm width, 80mm longitude), but no liver abscess. Microbiological survey in our hospital revealed non-typhoid *Salmonella* bacteremia later. He was treated with antibiotics for salmonella bacteremia, and scheduled for implanting intravascular aortic stenting graft after two weeks of antibiotics for bacteremia. He was treated with levofloxacin and cefotaxime, and recovered from septic shock.

Unfortunately, his abdominal aortic aneurysm ruptured with abdominal pain and hypovolemic shock on hospital day 10. Emergent procedure of aortogram and implanting intravascular aortic stenting graft was performed successfully to cease the bleeding from the rupture aortic aneurysm.

Intensive medical cares were performed for complications from the ruptured abdominal aortic aneurysm with hypovolemic shock. He received urgent hemodialysis

for acute kidney injury as renal support, and his renal function recovered later. Prolong antibiotics were prescribed for non-typhoid *Salmonella* bacteremia and possible infection owing to the shock episode. On day 21 and day 28, he was performed with surgical intervention of debridement and hematoma evacuation for large amounts of hematoma accumulated inside of retroperitoneal space, surrounding the abdominal aortic aneurysm. Later, up to hospital day 56, he was under stable condition after post operation care and treatment.

## Discussion:

The Incidence of non-typhoid *Salmonella* bacteremia was about 49 cases per 100,000 people worldwide in 2010 . Primary infected aortic aneurysm is a rare and life-threatening disease, and has an extremely high mortality rate without surgery. Between September 1995 and December 2001, 121 patients with non-typhoid *Salmonella* bacteremia were treated, of whom 24 patients had an aortic aneurysm infected with *Salmonella*. Ten had a suprarenal and 14 an infra-renal aortic infection. The most common responsible pathogen was group C *Salmonella* (12 patients). All of the 20 patients who had combined medical and surgical therapy survived, whereas two of four who had medical therapy alone died. There were two late deaths during a mean follow-up of 23 (range 3–63) months. Timely surgical intervention and prolonged intravenous antibiotic therapy resulted in excellent outcomes.

Although there are rare reports of patient survival following a contained rupture of abdominal aortic aneurysm. In general, without repair, ruptured abdominal aortic aneurysm is uniformly fatal, with death occurring usually within hours and certainly within a week of rupture. Hemodynamically unstable patients with known abdominal aortic aneurysm who present with classic symptoms/signs of rupture (hypotension, flank/back pain, pulsatile mass) should be taken emergently to the operating room for immediate control of hemorrhage and repair of the aneurysm. This is the first reported case of survival of a patient with an abdominal aortic aneurysm rupture initially presenting with non-typhoid salmonella bacteremia, by mean of aortogram and implanting intravascular aortic stenting graft.



 $\square$  —. The initial computer-tomography scan showed a fusiform abdominal aortic aneurysm, 51 mm in width and 80 mm in longitude.





圖二. The follow-up contrasting computer-tomography scan, 11 days after implanting intravascular aortic stenting graft, showed no more active bleeding from the abdominal aortic aneurysm.