

中文題目：星座鏈球菌菌血症合併心內膜炎和肝膿瘍且同時合併有胃癌

英文題目：*Streptococcus constellatus* septicemia complicated with endocarditis and liver abscess associated with gastric adenocarcinoma

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Introduction:

Streptococcus bovis and *Streptococcus sanguis* bacteremia were known to be associated with colonic malignancy by review of literatures¹². However, the association between *Streptococcus constellatus* bacteremia and malignancy was less discussed. In this case report, we present a case of *Streptococcus constellatus* septicemia complicated with endocarditis and liver abscess associated with gastric adenocarcinoma.

Case report:

A 81-year-old female patient has past history of hypertension. She was in her usual health status until two days ago, when she suffered from general weakness, poor appetite, nausea but no vomiting episode. Additional symptoms including chilliness, dry cough and shortness of breath developed 1 day after the onset date and she was brought to the emergency room, where the laboratory data showed anemia (Hemoglobin: 7.2g/dL), leukocytosis with left shift (White blood cell: 37320/ul, Neutrophil: 92.5%, Metamyelocyte: 2.5%, Myelocyte: 1.0%), abnormal liver function (Glutamate oxaloacetic transaminase: 129U/l, glutamate pyruvate transaminase: 120U/l) and abnormal renal function (blood urea nitrogen: 68mg/dL, creatinine: 2.48mg/dL). Abdominal echogram showed Two huge mix-echoic lesions over bilateral lobes and liver abscess was impressed and she was admitted to the ward of gastroenterology department.

On admission, the physical examination showed wheezing sound over bilateral lung field and remainder of physical examination was normal. Empirical antibiotics teicoplanin and flomoxef were used for liver abscess. Besides, echo-guide aspiration of liver abscess was drained, with 200ml green- whitish pus (**Figure 1**). After treatment, liver and renal function impairment improved. Two sets of blood culture grew gram positive cocci of *Streptococcus constellatus* (*S. constellatus*). The susceptibility test revealed that this organism was all sensitive to ampicillin, cefotaxime, levofloxacin, ceftriaxone, erythromycin, vancomycin, clindamycin and linezolid. She received complete course of four weeks' antibiotics therapy (cefotaxime 2g intravenously drip every 4 hour). Considering infective endocarditis

due to gram positive cocci bacteremia, transesophageal echocardiography was arranged and the report showed infective endocarditis, with a 0.65x0.89cm vegetation over anterior mitral leaflet with moderate mitral regurgitation (**Figure 2**). As for suspected gastrointestinal lesion related bacteremia, colonoscopy and esophagogastroduodenoscopy were performed, showing a 7x5cm Active ulcer with clear border at anterior wall of the antrum (**Figure 3**), which pathology results revealed adenocarcinoma in irregular nest or single cell pattern. Computed tomography for tumor staging revealed gastric carcinoma, iT3N2M0 (**Figure 4**). As for infection control, bilateral pigtail catheter insertion for liver abscess was done after three times of liver abscess aspiration. Following Blood culture showed no more bacterial growth. However, contrast induced nephropathy was diagnosed 1 week later on after the computed tomography. Respiratory distress and metabolic acidosis, she had down grade condition and transferred to intensive care unit. Due to severe pain and suffering of noninvasive positive pressure ventilation use and hemodialysis process, family meeting was arranged and she refused any further treatment and was transferred to ordinary ward for hospice care. She expired shortly afterwards.

Discussion:

Streptococcus constellatus is a species of *Streptococcus milleri* group (SMG) part of the normal flora in the oral cavity, urogenital region, and intestinal tract³. However, it can frequently cause purulent infections in other parts of the body. Review of literature, pyogenic liver abscesses due to hematogenous SMG infection are rare but can be observed even in healthy patients³. In such cases, physicians should consider the existence of primary lesions that allow penetration of the SMG. Moreover, according to several articles, endocarditis is a substantial clinical marker for presence of occult cancer and with this phenomenon being more evident in patients within the 1st 5 years after a diagnosis of endocarditis⁴. In our patient, the streptococcus constellatus septicemia complicated with endocarditis and liver abscess may remind physicians the association of malignancy.



Figure 1. General appearance of the liver abscess from echo-guided aspiration

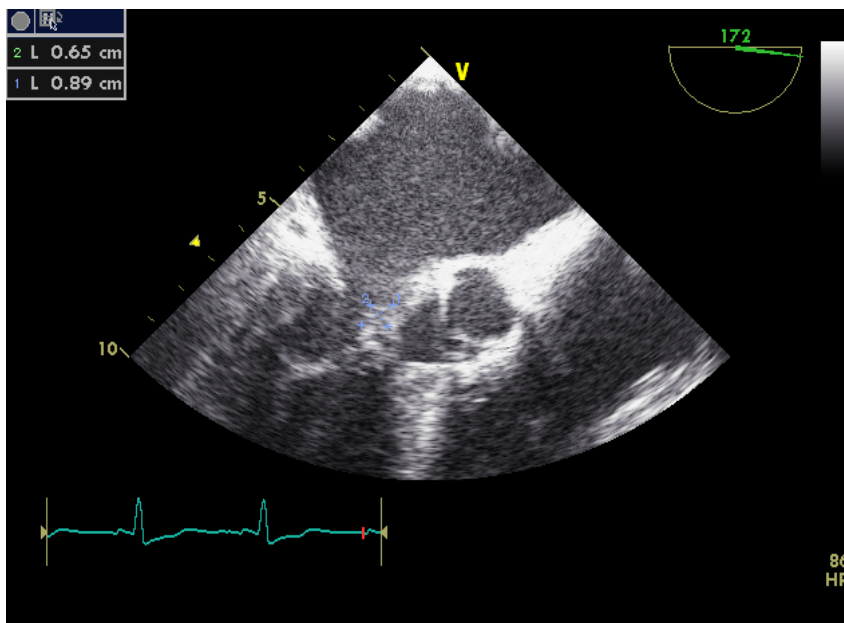


Figure 2. Transesophageal echocardiographic report showed preserved left ventricle systolic function without significant wall motion abnormality. Besides, report showed calcified aortic leaflet with mild to moderate aortic regurgitation without aortic stenosis. One vegetation (0.65 x 0.89cm) was recorded over anterior mitral leaflet

with moderate mitral valve regurgitation and mild tricuspid valve regurgitation

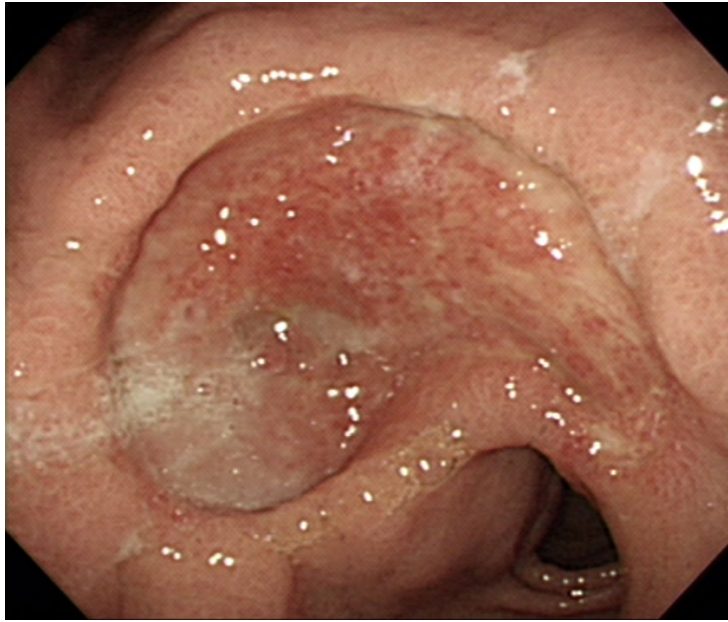


Figure 3. A 7x5cm active ulcer with clear border at anterior wall of the antrum involving the antrum.



Figure 4. Contrast-enhanced computed tomography images of the abdomen and pelvis showed multiloculated cystic lesions and a tumorous lesion at the antral part of the stomach (scale bar)

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