

## **BRUCELLA ABORTUS ENDOCARDITIS PRESENTING WITH ACUTE PANCREATITIS: CASE REPORT**

### **AKUT PANKREATİT İLE BİRLİKTE SEYREDEN *BRUCELLA ABORTUS* ENDOKARDİTİ: BİR OLGU SUNUMU**

Ali Rıza ERBAY<sup>1</sup> Esragül AKINCI<sup>2</sup>

<sup>1</sup> Türkiye Yüksek İhtisas Hospital, Department of Cardiology;

<sup>2</sup> Ankara Numune Hospital, Department of Infectious Diseases and Clinical Microbiology; Ankara

**Key Words:** Brucellosis, *Brucella abortus*, endocarditis, pancreatitis, complication, diagnosis

**Anahtar Sözcükler:** Bruselloz, *Brucella abortus*, endokardit, pankreatit, komplikasyon, tanı

## **SUMMARY**

*Endocarditis and pancreatitis are rare complications of brucellosis. In this paper, a 52-year-old male case of *Brucella abortus* endocarditis presenting with acute pancreatitis is presented. The diagnosis was made by clinical features, positive blood cultures, positive serology, vegetation on the aortic valve, high serum amylase and lipase level. Specific antimicrobial treatment for brucellosis was started and a surgical operation was planned; but the patient developed severe cardiac failure and died on the fifteenth day of his admission.*

## **ÖZET**

*Endokardit ve pankreatit brusellozun nadir görülen komplikasyonlarıdır. Bu yazıda, 52 yaşındaki bir erkekte pankreatit ile birlikte seyreden *Brucella abortus* endokarditi bildirilmektedir. Klinik bulgular, pozitif kan kültürü, pozitif seroloji, aortik kapakta vejetasyon saptanması, yüksek serum amilaz ve lipaz düzeyi ile tanı konulmuştur. Spesifik bruselloz tedavisi başlanmış ve hastaya cerrahi girişim planlanmıştır. Ancak hastada şiddetli kalp yetmezliği gelişmiş ve hasta yatışının 15. gününde kaybedilmiştir.*

## **INTRODUCTION**

Endocarditis is a rare, but fatal complication of brucellosis (1). Acute pancreatitis is also an uncommon complication, and only one case has been reported in the literature (2). In this report, a case of *Brucella abortus* endocarditis associated with acute pancreatitis is presented.

## **CASE**

A 52-year-old man was admitted to the hospital in February 2000 with ten-day history of cough, vomiting and epigastric pain. He had vomited after each meal and after vomiting he had relieved. He was living in a village and had no history of alcoholism.

On admission, his physical examination revealed an aortic systolic murmur (grade 2/6), rales at the lower lobes of the lungs and moderate epigastric tenderness. His blood pressure was 120/70 mmHg and pulse rate 111/min, regular. He had a body temperature of 38.5°C. Electrocardiography showed ST depression at V4-V6 and negative T waves. Cardiomegaly was detected on his chest x-ray.

The diagnosis on admission was coronary arterial disease and non-Q MI. Specific treatment was started and blood cultures were drawn.

His total white cell count was 9.600/mm<sup>3</sup> with a differential count of 84% neutrophils, 10% lymphocytes

and 6% monocytes. The haemoglobin level was 13.4 g/dl, platelet count 210.000/mm<sup>3</sup> and erythrocyte sedimentation rate 35 mm/h. Blood biochemistry tests revealed CK-MB: 33 U/L (0-24), AST: 82 U/L (0-37), ALT: 63 U/L (0-41) total bilirubin: 0.9 mg/dl (0-1), glucose 82 mg/dl (60-110), amylase 396 U/L (0-220), and lipase 160 U/L (0-190). His lipid profiles, electrolytes and renal functions were normal. Because of high amylase level, epigastric pain and vomiting, acute pancreatitis was considered and his oral uptake was stopped. Pancreatic amylase was measured and gave a result of 357 U/L (17-115). Abdominal ultrasonography showed normal gall bladder, liver, spleen and pancreas. The ultrasonography of salivary glands was also normal. Mumps IgM was found negative, and he had no history of mumps.

His echocardiography demonstrated calcific vegetation (25x15mm) on the aortic valve, bicuspid aorta and ventricular dilatation. Intravenous penicilin G plus gentamicin was started for the empiric therapy of infective endocarditis. During this time his serum amylase level increased to 831 U/L and lipase to 311 U/L. His fever and vomiting continued.

His blood cultures grew *Brucella abortus* on the fifth day of incubation. Standard tube agglutination test was performed and gave a positive result at a titre of 1:640. Specific therapy for brucellosis was started with rifampicin 600 mg/d plus doxycycline 200 mg/d and *Brucella abortus* endocarditis was diagnosed in the patient. Penicillin G and gentamicin were stopped. A surgical operation was planned. After the specific antibiotic therapy, his fever gradually dropped to normal, but he developed a severe cardiac failure suddenly and died on the 15th day of his admission. Autopsy was not performed because his family did not permit.

## DISCUSSION

Endocarditis is a rare, but fatal complication of brucellosis (1). Aortic valve is the most commonly affected valve and *B. abortus* is the most commonly

isolated species (3). The vegetation is mostly calcific and bulky.

Brucellosis remains a major infectious disease problem in Turkey. Several cases of *Brucella* endocarditis were reported previously (4-7). In this paper, a case of *B. abortus* endocarditis presenting with acute pancreatitis is reported. The diagnosis of endocarditis was made by positive blood cultures, positive serology and presence of calcific vegetation on the aortic valve.

There are many causes of acute pancreatitis. Alcohol ingestion, biliary tract disease, surgical operation, trauma, drugs, hypertriglyceridemia, hypercalcemia, viral, bacterial or parasitic infections may cause acute pancreatitis (8). Only one case of acute pancreatitis associated with brucellosis has been reported in the literature (2). In that case, the diagnosis was made by positive serology, positive blood cultures, high level of serum amylase and clinical symptoms (2). In the presented case, the clinical findings of acute pancreatitis, such as vomiting and epigastric pain, were detected. The high level of serum amylase and pancreatic amylase supported the diagnosis. Later, serum lipase level also increased. The other causes of acute pancreatitis, such as alcoholism, biliary tract disease, mumps, drugs, metabolic causes and trauma were excluded.

The recommended treatment regimen of *Brucella* endocarditis is combination of medical and surgical therapy (1, 4, 9-14). The presented patient was given rifampicin and doxycycline. Several antimicrobial agents have been used for *Brucella* endocarditis. Current recommendations are for combinations of at least two drugs (11). The combination of doxycycline and rifampicin is generally accepted as the standard treatment of brucellosis (1).

Major indication of surgery is haemodynamic compromise, and most common cause of death in *Brucella* endocarditis is congestive heart failure (3). Surgical operation was planned for this patient, but he developed severe cardiac failure and died.

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