employed (2). It may provide additional important information detecting the precise site of insertion and morphologic features of atrial and ventricular myxomas. It is also more sensitive for identifying small (1-3 mm in diameter) and multiple myxomas, but cannot visualize or diagnose active infection, which requires isolation of the offending organism.

The rarity of infected cardiac myxomas leads to numerous diagnostic and therapeutic difficulties. The differential diagnosis of infected myxoma mainly includes uninfected myxoma, as well as mural endocarditis and infected intracardiac thrombus. Criteria have been proposed to aid in the diagnosis of infected myxoma (8). In our patient, blood cultures are positive for streptococci and the diagnosis of infected left atrial myxoma was confirmed histologically by the presence of microabscess.

Therapeutically, surgical resection of the tumor and maintaining the standard antibiotic regimen for endocarditis, appear to have prevented fatal embolic complications and infection recurrence. In our patient, after the antimicrobial therapy for two weeks, surgical excision of the mass was performed, and antibiotic regimen was maintained for two weeks postoperatively.

Conclusion

Our case represents an exceptional form of atrial myxoma. Since the clinical presentation of infected myxoma may be similar to that of uninfected myxoma, blood cultures should be done whenever a patient with myxoma presents fever, and echocardiography should be performed in patients with fever of unknown origin when the initial techniques are not conclusive (9).

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Address for Correspondence/Yazışma Adresi: Dr. Aytül Belgi Yıldırım,
Department of Cardiology, Faculty of Medicine Akdeniz University, Antalya, Turkey
Phone: +90 242 227 67 72 E-mail: aytulbelgi@gmail.com
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A case of fatal endocarditis due to *Suttonella Indologenes*

Suttonella Indologenes'e bağlı bir fatal endokardit vakası

Fırat Özcan, Ali Yıldız, Mehmet Fatih Özlü, Mehmet Doğan, Kumral Çağlı, Zafer Büyükterzi, Özcan Özeke, Mücahit Yetim, Ali Şaşmaz
Department of Cardiology, Türkiye Yüksek İhtisas Hospital, Ankara, Turkey

Introduction

Endocarditis is an uncommon late complication of prosthetic heart valves that affects 1-2% of cases (1). We are presenting *Suttonella indologenes* (ancient name: Kingella indologenes) endocarditis complicated with splenic infarction and lethal intracranial hemorrhage in a patient with aortic valve replacement.

Case Report

A 35-year-old male patient was admitted to our emergency department with the chief complaints of chills, fever, tiredness and abdominal pain for three weeks. His past medical history was remarkable for aortic valve replacement surgery performed for rheumatic aortic valve disease 19 years ago. He was on anticoagulant treatment with warfarin. Abnormal findings on physical examination were axillary body temperature was 37.6°C and hepatosplenomegaly, and tenderness on the left upper and lower quadrants. The remarkable laboratory results were as follows: erythrocyte sedimentation rate was 120 mm/hour; high sensitive C-reactive protein was 27.6mg/dl (>0.744mg/dl); rheumatoid factor was 38.9IU/ml (>20IU/ml); hemoglobin was 6.2g/dl; hematocrit was 29.8%; white blood cell count was 10690/ml with 81.9% neutrophils. A transthoracic echocardiogram (TTE) showed normally functioning bileaflet mechanical aortic valve with a mean gradient of 12 mmHg. No vegetation was demonstrated on any of the heart valves with TTE. His left ventricular ejection fraction was also normal. After drawing blood cultures, prophylactic antibiotic treatment with sulbactam-ampicillin, gentamycin and rifampycin was instituted for presumptive diagnosis of infective endocarditis. A transesophageal echocardiogram revealed a vegetation in size of 0.9x0.4cm on metallic aortic valve (Fig. 1). Hepatomegaly was detected on abdominal ultrasonography (USG). Since abdominal USG could not clarify the etiology of abdominal pain, an abdominal computed tomography (CT) was performed. Hepatosplenomegaly and a splenic infarct (Fig. 2) were detected on CT. *Suttonella indologenes*, a gram-negative coccobacillus that was sensitive to ampicillin, cephalosporines, ciprofloxacin and resistant to imipenem and meropenem was isolated from all of the blood culture specimens. On the same day, diplopia was developed suddenly. Examination of the patient revealed normal sensory and motor functions with normoactive reflexes without any pathologic reflexes. Cranial CT revealed a hyperdense lesion with dimensions of 7x8mm at the left frontal lobe at the level of vertex (Fig. 3a). The presumptive diagnosis was cranial abscess or mycotic aneurysm. Six hours later, the patient suddenly lost consciousness with hemiplegia of the right side of the body. Pupillary light reflexes were negative with hypoactive deep tendon

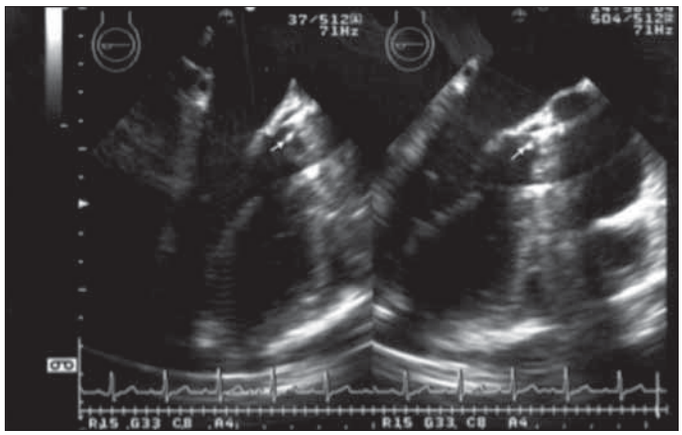

Figure 1. The long-axis view by transesophageal echocardiography depicting vegetation (arrow) on the prosthetic aortic valve

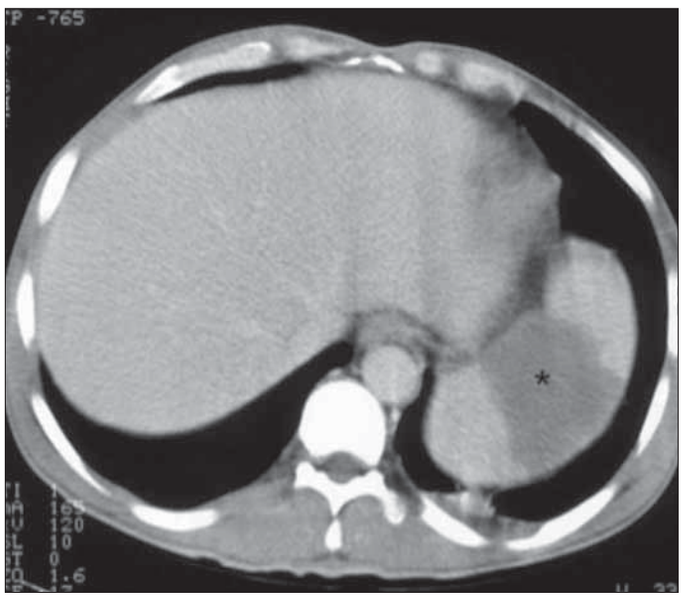

Figure 2. Splenic infarction (asterisk) on abdominal computed tomography (CT)

reflexes and absence of the reflex to painful stimuli. A sudden respiratory arrest developed and the patient was intubated. Repeated cranial CT revealed diffuse hemorrhage into the parenchyma of the left frontal lobe extending through the ventricles (Fig. 3b, c). At the follow-up in the intensive care unit, he succumbed despite cardiopulmonary resuscitation.

Discussion

Suttonella indologenes is a fastidious gram-negative coccobacillus that is oxidase and indole positive and catalase negative and can ferment sucrose and glucose (2). The usual habitat of Suttonella (ancient genus Kingella or Moraxella) is the mucous membranes of the upper respiratory tract (3). Investigation of seawater revealed the presence of *Suttonella indologenes* (4). The only report of extracardiac involvement of this agent was a corneal abscess (5).

Kingella Kingae (K. Kingea) is also gram negative cocobacillus which is considered in same genus. K. Kingea is normal inhabitant of oropharynx and mostly seen in children less than 5 years old as

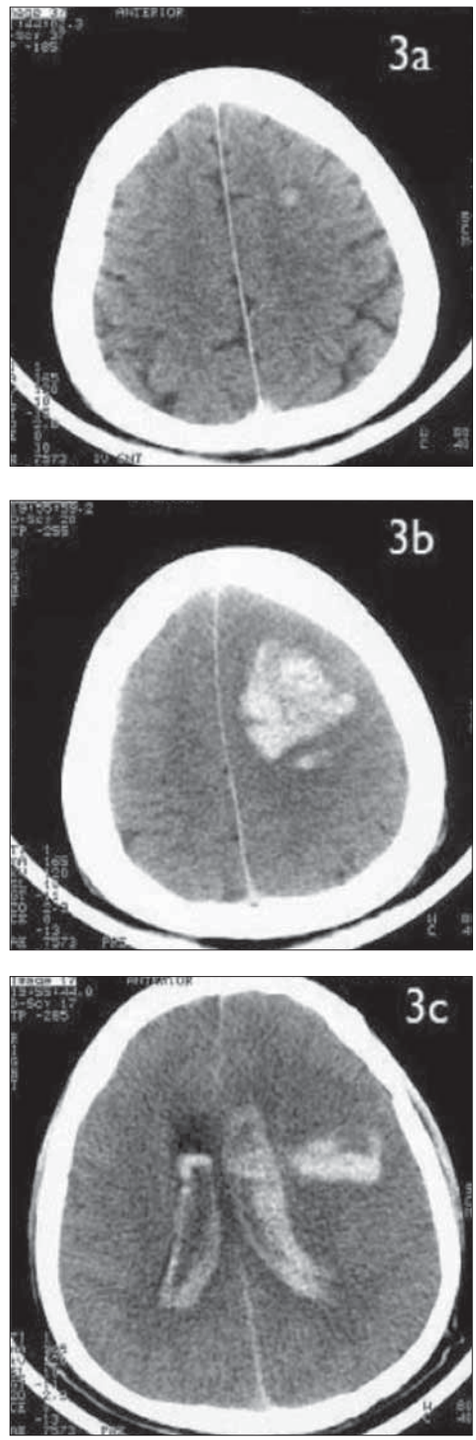

Figure 3. a) First CT of cranium showing a hyperdense lesion at left frontal cortex at the level of vertex; b and c). Subsequent CT of cranium revealing hemorrhage into the parenchyma at left frontal cortex at the level of vertex with extension into the bilateral lateral ventricles

CT - computed tomography

osteoarticular infection. In adults, it is more common to be presented as endocarditis. It was thought the cause of infections was the disruption of buccal and respiratory mucosa (6).

Overall, 40 cases have been reported as endocarditis caused by K. Kingea. Seven of them was prosthetic valve endocarditis. Only one had complicated course, the others responded well to antibiotic therapy. The preferred therapy was penicillin plus gentamycin (7).

In the literature, the unique case of *Suttonella indologenes* endocarditis has been reported by Jenny et al. (8). A 60 year-old man with aortic and mitral valve prosthesis complicated with late endocarditis due to *Suttonella indologenes* was described. The patient was reported to have minimal constitutional symptoms and had an uneventful follow-up with optimal antibiotherapy with tobramycin and ampicillin without any complication. Although the authors concluded that the *Suttonella indologenes* prosthetic valve endocarditis to have a benign course, the present case had a fatal outcome (9). Additionally our patient experienced splenic infarction and intracranial hemorrhage during the course of the disease.

Complications of infective endocarditis include thromboembolic events and extracardiac infections. Neurologic complications like stroke, abscess, mycotic aneurysm or hemorrhage tend to occur in 20-40% of infective endocarditis cases. Intracranial hemorrhage is encountered in about 5% of infective endocarditis cases (10) and splenic infarction is a rarely reported complication. CT is more sensitive test than ultrasonography in detecting the splenic infarction and hence, CT should be performed in infective endocarditis patients who had abdominal pain with normal ultrasonography.

Conclusion

In patients with prosthetic cardiac valve, *Suttonella indologenes* endocarditis may have severe complications during the course of the disease and dramatic fatal outcome despite medical therapy.

By presenting this patient, we want to emphasize the fatality of known as benign, rare microorganism and to remind the clinicians rare microorganisms should be in mind while evaluating the patients.

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Address for Correspondence/Yazışma Adresi: Dr. Fırat Özcan,
Department of Cardiology, Türkiye Yüksek İhtisas Hospital, Ankara, Turkey
Phone: +90 312 562 12 26 E-mail: drfo1979@yahoo.com
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