Abstract Poster

Case report

A survivor of disseminated S*treptobacillus moniliformis* infection complicated with aortic valve infective endocarditis, aortic root abscess, and aortic pseudoaneurysm.

Authors

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Background

Streptobacillary endocarditis though rare, is well-described, and often associated with fatal complications. Mitral valve endocarditis is most described. Of the twenty cases of endocarditis reported since 2000, only 5 cases affected aortic valve, and 2 of them with aortic root abscesses. Of these two patients, one survived and the other died after surgery. Our patient had aortic valve infective endocarditis, aortic root abscess, and aortic pseudoaneurysm, postoperatively complicated with complete heart block with excellent recovery with antibiotics, surgery, and pacemaker implantation.

Case presentation

A previously healthy 56-year-old woman presented with 10 days history of fever, headache, ankle pains, and rash over the left ankle. She did not report any rodent bites. On admission, she was hemodynamically stable with no signs of infective endocarditis. Admission anaerobic blood culture showed gram-negative bacilli (figure 1), and after 6 days, *Streptobacillus moniliformis* was identified using matrix-assisted laser desorption/ ionization-time of flight mass spectrometry. A day later, a diastolic murmur and collapsing pulse were observed. The echocardiogram showed severe aortic regurgitation with 0.8 cm vegetation, 1 cm perforation of the right coronary cusp, and aortic root wall abscess. The computed tomography coronary angiogram showed a 2 x 2 cm pseudoaneurysm at the aortic root (figure 2). On the fourteenth day of admission, she progressed to acute heart failure and cardiogenic shock requiring emergent debridement of periaortic abscess, patch repair of aortic root pseudoaneurysm, and aortic valve replacement (Figure 3). Intraoperative cultures were negative, histopathology was suggestive of infective endocarditis. Postoperatively, she developed a complete heart block and had dual chamber left bundle branch pacemaker

implantation. She had an excellent recovery with 2 weeks of gentamicin and 4 weeks of Crystalline penicillin from surgery.

Conclusions

Fulminant streptobacillary infective endocarditis is a well-described complication that often requires early surgical intervention for good clinical outcomes. Diagnosis of Streptobacillary infection can be challenging due to its fastidious growth characteristic. Although our patient did not recall any rodent bites, accurate microbiological diagnosis, appropriate antimicrobial therapy, and surgical intervention contributed to our patient's excellent outcome.

Keywords: Streptobacillary infective endocarditis

Figures:

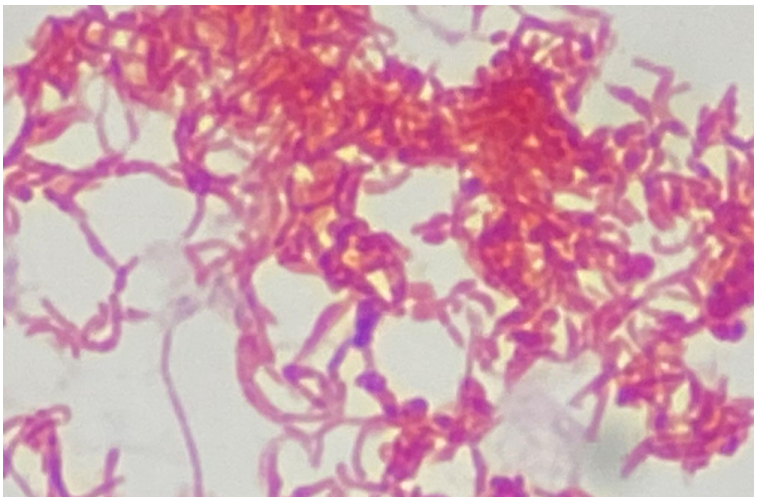

Figure 1. *Streptobacillus moniliformis* gram stain gram-negative bacilli showing with bulbous swelling.

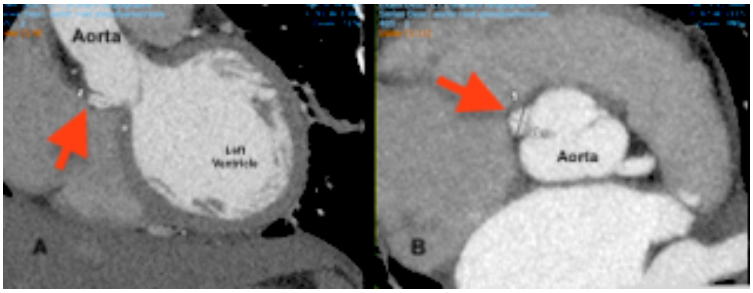

Figure 2. CT Coronary Angiography of aortic root pseudoaneurysm 2x 2 cm arising from the right coronary cusp with red arrow (A) axial view (B) coronal view

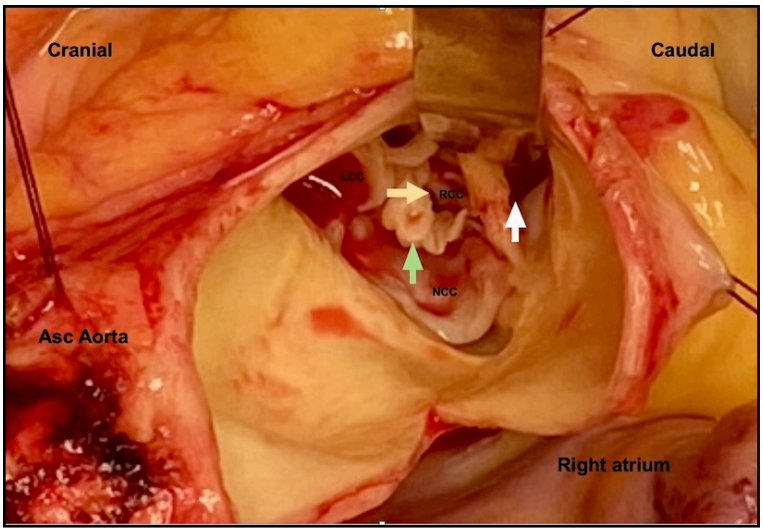

Figure 2. Tri-leaflet aortic valve with vegetations (green arrow) and perforation of the right coronary cusp (yellow).

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