Letter to editor

mucosa

DOI: 10.33204/mucosa.659636

A *Staphylococcus aureus* endocarditis presented with skin findings

Deri bulguları ile ortaya çıkan bir *Staphylococcus aureus* endokarditi

Bengu Gerceker Turk[1], Ugur Onsel Turk[2]

[1]Derma&Plast Clinic, [2]KardiyoRitm Cardiac Health Center

Dear editor,

A 46-year-old, previously healthy woman presented with a 20-day history of pain and discoloration of right index finger, fatigue, headache, and abdominal pain. Patient was hospitalized in a different clinic 10 days ago and a right brachial angiogram performed, showing distal occlusion of right index finger digital artery. Her medical history was unremarkable and did not include intravenous drug use, recent dental procedures, heart murmurs or cardiac abnormalities. On admission she was normotensive, with no fever and mild tachycardia (110 beats/min). Physical examination revealed an area of necrosis clearly visible at the distal phalanx of right index finger, multiple painful erythematous nodules, petechiae, purpura on the palmar surface of hands and feet, splinter hemorrhage, and painful nodular lesions on feet (Fig.1). Neurological and pulmonary examinations were normal. A systolic murmur heard at apical region on cardiac auscultation. Laboratory tests showed leukocytosis (16300/mm^3), increased levels of C-reactive protein (7.59 mg/dl) and elevated creatinine levels (2.25 mg/dl). Tests for human immunodeficiency virus, rheumatoid factor, and hepatitis were negative. Transthorasic echocardiogram detected the presence of a mobile mass (16mmX12 mm) attached to the posterior leaflet of the mitral valve with severe mitral regurgitation. Her fundoscopic examination was normal. Cranial magnetic resonance imaging showed multiple lacunar infarcts. Abdominal ultrasound demonstrated normal kidneys and hypodense area in spleen, suggestive of infarct zone. A diagnose of left-sided native heart valve endocarditis was made. Blood cultures demonstrated methicillin-sensitive *Staphylococcus aureus* and treatment with gentamicin and vancomycin was started. Patient underwent surgery on the fourth day of hospitalization. The posterior leaflet of the mitral valve was totally destroyed and a 27 No St Jude mechanical valve implanted. Patient was uneventfully discharged on the twenty-fifth day of hospitalization.

Infective endocarditis is a serious microbial infection of the endocardial endothelium or valve prosthesis. Its incidence is 15/100 000 in the United States. S. *aureus* is the most causative agent in up to 40% of cases and is usually associated with acute endocarditis, while indolent pathogens, viridans group streptococci or coagulase-negative staphylococci cause subacute infective endocarditis.[1,2]

Key words: *endocarditis, Staphylococcus aureus, skin findings*

Corresponding author: Bengu Gerceker Turk, Derma&Plast Klinik, Mansuroglu Mah, 288/4 Sok, 16/23-24, Bayrakli, Izmir, Turkey
Phone: + 90 506 702 10 20 E-mail: bengugerceker@yahoo.com
Received: 24 December 2019 ***Accepted:*** 29 December 2019
Conflicts of Interest: None
Funding: None

Fig. 1. (a),(b),(c) Necrosis at the distal phalanx of right index finger, multiple painful erythematous nodules on the palmar surface of hands and feet, splinter hemorrhages, (d) mobile vegetations on mitral leaflets on apical four chamber echocardiographic view

The most common presentation is fatigue, dyspnea, weight loss or embolic events, while skin findings are observed in 3-5 % of the cases. Today classical physical signs of endocarditis are less commonly seen because of previous antibiotic usage, changes in microbial profile and patients' characteristics. Echocardiography and blood cultures are commonly used as the main diagnostic tools. However, underestimating the clinical importance of classical physical signs of endocarditis can delay appropriate therapy which is crucial for the success of treatment.[3,4] We presented a case with *Staphylococcus aureus* endocarditis, demonstrating prized skin manifestations as hemorrhagic Osler's nodules, Janeway lesions, splinter hemorrhages. Skin findings which are caused by septic emboli, may be an important clue for the early diagnosis of these cases.

References

1. Bernardes Filho F, Machado CC, Queiroz RM, Nery B. Hallmark cutaneous signs of infective endocarditis. J Emerg Med 2018;54:876-77.
2. Murdoch DR, Corey GR, Hoen B, et al. Clinical presentation, etiology, and outcome of infective endocarditis in the 21st century: the international collaboration on endocarditis-prospective cohort study. Arch Intern Med 2009;169:463-73.
3. Selton-Suty C, Celard M, Le Moing V, et al. Pre-

eminence of Staphylococcus aureus in infective endocarditis: a 1-year population-based survey. Clin Infect Dis 2012;54:1230-9.
4. Wang A, Gaca JG, Chu VH. Management considerations in infective endocarditis: A Review. JAMA 2018;320:72-83.