Dermatology Practical & Conceptual

A Case of Infective Endocarditis Presenting with Skin Findings

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Introduction

This case is shared to remind dermatologists of dermatological findings in rapid and accurate diagnosis and the importance of Janeway lesions in the diagnosis of infective endocarditis (IE) and to contribute to the literature.

Case Presentation

A 40-year-old male presented to the emergency department with complaints of weakness, diffuse muscle aches, yellowing of the eyes, and burning during urination for a week. Shortly before his admission, he had noticed non-painful discoloration of the big toe of the left foot, the third finger nail of the right hand, the distal tips of the fingers, and bilateral palmar areas. Cardiovascular and respiratory system examination was normal. He had no fever. Blood pressure, pulse, and O_2 saturation were normal. WBC:20.29x10^3 cells/µL, PLT:60x10^3 cells/µL were measured as abnormal findings. Elevated liver enzymes (AST: 510 U/L, ALT: 359 U/L, ALP: 238 U/L, Total Bilirubin: 6.21 mg/dL, Direct Bilirubin: 4.68 mg/dL, LDH: 798 U/L, GGT: 77 U/L) were detected. Renal function tests showed deterioration (Creatinine: 4.1 mg/dl, Urea: 160 mg/dl, GFR: 17). CRP:380 mg/L and Procalcitonin:2.1 ng/mL. The patient was admitted to the intensive care unit due to acute renal failure, elevated liver enzymes, and acute phase reactants. Cholestatic appearance was observed on abdominal USG. The patient's blood culture result was negative. Hepatitis panel, ANTI HIV, Torch panel, EBV, VZV, Leptospirosis, and Crimean-Congo haemorrhagic fever antibodies were negative. During follow-up, the patient developed persistent fever and agitation, and his general condition and laboratory values deteriorated rapidly. The patient was evaluated neurologically, and no neurologic pathology was considered. Skin biopsy was taken from the livedo macular and papular lesions (Figure 1) of the patient, who was consulted dermatologically. Histopathological evaluation revealed perivascular and periadnexal nonspecific lymphocytic dermatitis in the upper, middle, and deep dermis. The patient was evaluated by the rheumatology and cardiology clinics, and fibrinogen: 657 mg/dL, D-dimer: 4.44 mg/L, procalcitonin: 6.2 ng/mL and NTProBNP: 4458 pg/mL

Figure 1. Janeway lesions: Subungal, irregular, painless, erythematous or hemorrhagic macules and papules on the left big toe, palms, and distal tips of fingers.

values gradually increased. Subsequently, a transesophageal echocardiogram (TEE) was performed. Although no vegetation was detected on the initial transthoracic echocardiogram (TTE), the TEE revealed an 8-mm mass/vegetation involving all three cusps, more prominent on the noncoronary and right coronary cusps of the aortic valve.

Conclusion

In this case, the patient was diagnosed with IE relatively late as pre-diagnoses such as viral hepatitis, cholecystitis, and urinary tract infection were prioritized due to the absence of fever and cardiac symptoms/signs at the beginning and to the absence of growth in multiple blood cultures, although the patient's skin findings were a warning. Janeway lesion is a cutaneous manifestation of endocarditis, a disease usually caused by bacterial or fungal infection of the cardiac endocardium. Janeway lesions are irregular, nontender, erythematous or hemorrhagic macules or papules lasting days to weeks, usually found on the palms and soles of the feet [1].

It should be kept in mind that Janeway lesions may be an important clue for early diagnosis of IE.

Reference

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