CASE REPORT

A Forgotten Clinical Sign Making A Comeback

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SUMMARY

We report a case of Staphylococcus aureus infective endocarditis in a patient presenting with fever and rare cutaneous manifestations of Osler Nodes and Janeway Lesions. There had not been any distinct risk factors. His echocardiography subsequently revealed vegetation at the anterior mitral valve leaflet. As Staphylococcus aureus infective endocarditis is of utmost significance in morbidity and mortality, a sharp clinical acumen and follow up investigations is required alongside a prolonged course of antibiotics. Our patient was then started on intravenous cloxacillin for 28 days and gentamicin for 5 days to which he made good progress and recovery.

KEY WORDS:
Infective endocarditis, Osler Nodes, Janeway lesions

INTRODUCTION

Infective endocarditis (IE), first described in the mid 16th century still remains a pertinent problem in the 21st century despite advances of medical treatment. Of note, Staphylococcus aureus remains a common pathogen in previously well patients with no preexisting cardiac abnormality afflicted with IE and as well as a dangerous cause of bacteremia alongside its accompanied metastatic foci. This is of striking significance as 20-65% of Staphylococcus aureus infective endocarditis (SAIE) is fatal while the bulk majority are incapacitated with permanent comorbidities, thus, calling for early diagnosis and treatment initiation[1,2].

CASE REPORT

AS is a 12-year-old boy who came in with fever for one week and poor appetite. Two weeks prior to his initial complains, he had a sports injury to which he sustained a close fracture of the right fifth metatarsal bone associated with an abrasive wound. Aside from these, a thorough history did not reveal any potential source of infection. Clinical examination however revealed several tender, purplish and raised lesions over at the tips of his right middle finger and left ring finger. There were also several millimeter sized red and non-tender macules over at the palms and soles. These findings were classical for infective endocarditis having described both Osler nodes and Janeway lesions respectively, the striking contrast being its described location and presence of pain.

We then scrutinized closely at the cardiovascular examination, which was negative for murmurs. Respiratory, abdominal and neurological examinations were unremarkable. His ECG and Chest X ray were normal and so were his renal and liver profiles. His total white count was elevated at 28,000 and was predominantly neutrophilic. The urine full examination was positive for microscopic hematuria which lends our suspicion to infective endocarditis. His initial blood culture report grew Gram positive resembling Staphylococcus twice during the first and 12th hour of admission. The full report followed three days later and was noted to be methicillin sensitive Staphylococcus aureus (MSSA).

Based on these clinical data sufficing 1 major and 3 minor Modified Duke's criteria, we commenced him on intravenous Cloxacillin 2 grams 4-hourly and intravenous Gentamycin 60 mg 8-hourly for SAIE. Echocardiography later on that day revealed an oscillating mass, which was seen at the anterior mitral valve leaflet measuring 1.32 cm^2 on the apical four-chamber view. Surprisingly though, there had not been any valvular defect suggestive of previous rheumatic valvular disorders noted on the conventional 2D-echocardiography which would normally serve as a nidus for infective endocarditis to occur. With the newfound data, he matches the Modified Duke's criteria of 2 majors for IE.

He remains well on subsequent reviews and was discharged 6 weeks later upon antibiotic completion with repeated echocardiography during week 4 admission showing resolution of vegetation.

DISCUSSION

Keeping in mind of the accompanied complications of S. aureus bacteremia, the cutaneous manifestations gave us a valuable clue in highlighting other well-documented sites of secondary infection, which more often than not are subclinical. It is postulated that he might have acquired the infection through the soft tissue injury which served as a portal of entry into the bloodstream that led to endocarditis. The latter, being a potentially life-threatening complication is emphasized in a recent Danish trial, which proposes the usage of echocardiographic modality in all patients afflicted with S. aureus bacteremia[3].

Should there be doubt or suboptimal studies with the conventional transthoracic echocardiography (TTE), a transesophageal echocardiography (TOE) is recommended to

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look for small vegetations that may not be apparent on TTE. Aside from defining vegetations, TOE is also superior in detecting complications such as that of paravalvular abscesses, papillary muscle rupture or valvular perforation[2]. However, in the real world, an urgent TTE/TOE may not be feasible and would unnecessarily delay treatment. In this context with high clinical suspicion sufficing Modified Duke's criteria, it is prudent and of the author's opinion to consider early treatment initiation.

CONCLUSION

This case report serves to illustrate the rarity of such dermatologic findings that are pathognomonic features of infective endocarditis. Being able to recognize such signs in the event of our patient is crucial to aiding in diagnostic and management principles to avert disastrous complications from occurring. This is especially so when history and symptom manifestations are vague. The author also wishes to share that a thorough search for complications of S. aureus bacteremia is a must as proper and early treatment is vital to prevent reinfection or treatment failure resulting from secondary source of infection.

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