Group G *Streptococcus dysgalactiae* subspecies equisimilis, the clinical significance of a rare infection: endocarditis, polyarteritis, septic bursitis and pneumonia with complicated parapneumonic effusion

Diana Maria Monteiro Freitas

Hospital Geral de Santo
Antonio SA, Porto, Portugal

Correspondence to
Dr Diana Maria Monteiro
Freitas, di.monteiro.freitas@
gmail.com

Accepted 12 March 2017

DESCRIPTION

A man aged 55 years, a smoker, presented with a 7-day history of fever and additive oligoarthritis affecting both shoulders, left ankle (figure 1) and right fist. Group G Lancefield β -haemolytic *Streptococcus dysgalactiae* subspecies equisimilis (SDSE) was isolated from blood cultures; immunological study was not suggestive of autoimmunity and antistreptolysin O test was negative. In the first day after hospital admission, ischaemic lesions were seen on the fourth left finger (figure 2) and transoesophageal echocardiography was performed showing mitral valve vegetations and multiple jet mitral regurgitation. Multiple strokes affecting the spleen and right kidney were seen on the CT of the thorax, abdomen and pelvis, as well as multiple areas of lung consolidation with bilateral pleural effusion (a complicated exudate was documented after thoracentesis) and a fluid collection around the iliopsoas tendon (iliopectineal bursitis was confirmed by ultrasound-guided aspiration). We assumed SDSE bacteraemia causing subacute endocarditis with septic embolisation, multifocal pneumonia and septic bursitis. He was treated with gentamicin and G penicillin, according to culture result, with documented sterilisation of blood cultures after 72 hours. On day 13 after the onset of antibiotic therapy, a new septic emboli was seen on the fifth right toe. Repeat transoesophageal echocardiography demonstrated mitral valve endocarditis, although de novo aortic vegetations and severe aortic regurgitation with right coronary cusp prolapse were seen. He was submitted to aortic and mitral valve replacement surgery after which he completed 6 weeks of antibiotics therapy. He was

Figure 2 Ischaemic lesions on the fourth left finger.

Learning points

- ▶ Although initially considered non-pathogenic, recognition of invasive Group G *Streptococcus* (G St.) disease is rising,¹ with a relatively high incidence of infective endocarditis being reported.²
- ▶ G St. endocarditis is a rare, destructive² and aggressive³ form of infective endocarditis. Oligoarthritis mimetising acute rheumatic fever is a well-known clinical feature of subacute endocarditis and may have origin in deposition of circulating immune complexes. Despite the exquisite susceptibility of the pathogen to penicillin G, the clinical response to antibiotic treatment is slow, with surgical valve replacement being required in 50% of all cases.²
- ▶ With or without endocarditis, G St. bacteraemia is a serious infection that often follows a hectic course with significant morbidity and mortality.³ By reporting this case, we would like to stress the importance of prompt recognition of this infection and the need for aggressive management of these patients.

Figure 1 Arthritis affecting the left ankle.

CrossMark

To cite: Freitas DMM. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2017-219410

asymptomatic at discharge, despite severe left ventricular dysfunction.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

REFERENCES

- 1 Venezio FR, Gullberg RM, Westenfelder GO, *et al.* Group G streptococcal endocarditis and bacteremia. *Am J Med* 1986;81:29–34.
- 2 Bucher A, Gaustad P. Septicemia and endocarditis caused by group G streptococci in a Norwegian hospital. *Eur J Clin Microbiol Infect Dis* 1990;9:251–6.
- 3 Emilio Bouza MD, Richard D, Meyes MD, *et al.* Group G streptococcal endocarditis. *Am J Clin Pathol* 1978;70(1):108–11.

Copyright 2017 BMJ Publishing Group. All rights reserved. For permission to reuse any of this content visit <http://group.bmj.com/group/rights-licensing/permissions>.
BMJ Case Report Fellows may re-use this article for personal use and teaching without any further permission.

Become a Fellow of BMJ Case Reports today and you can:

- ▶ Submit as many cases as you like
- ▶ Enjoy fast sympathetic peer review and rapid publication of accepted articles
- ▶ Access all the published articles
- ▶ Re-use any of the published material for personal use and teaching without further permission

For information on Institutional Fellowships contact consortiasales@bmjgroup.com

Visit casereports.bmj.com for more articles like this and to become a Fellow