

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

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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.



Figure 1 Arthritis affecting the left ankle.

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 mimicking 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.



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asymptomatic at discharge, despite severe left ventricular dysfunction.

Competing interests None declared.

Patient consent Obtained.

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