

Invasive Group A streptococcus post septic miscarriage with associated viral co-infection in a regional hospital

Dr Heidi McReynolds¹ Dr Harsha Ananthram 1, 2

1. Department of Obstetrics and Gynaecology, The Wollongong Hospital 2. James Cook University

Background

Group A streptococcus (GAS) is a cause of pregnancy related sepsis and there is increasing worldwide incidence of invasive GAS (iGAS)^{1, 2}

Aims

To present a case on iGAS post septic miscarriage, with respiratory viral co infection an antecedent event

Case

26-year-old woman presented to a regional hospital with 3 days of cramping abdominal pain, heavy vaginal bleeding, fevers, nausea, vomiting and myalgia. One week prior she had flu-like symptoms and sore throat. She had hypotension, tachycardia and fevers. Her abdomen was soft, with uterine tenderness. Speculum showed a long 1cm dilated cervix with red discharge and no obvious products of conception (POC).

Results

Initial bloods showed WCC 9.7, CRP 28 and lactate 1.6. WCC peaked at 13.8, CRP 231 and lactate 2.5. High vaginal swab and blood cultures demonstrated GAS. Pelvic ultrasound showed an area of increased vascularity 8x7x5mm with no established intrauterine gestation sac, suspicious for retained POC. No respiratory swabs were performed. Histopathology showed POC, no MCS was performed. Chest x-ray was unremarkable. She was managed with IV antibiotics, and dilatation and curettage and made a full recovery.

Discussion

iGAS rates have surged following the COVID-19 pandemic, with viral co-infections such as influenza, rhinovirus and COVID during pregnancy an additional risk factor^{3, 4}. This patient had a 1st trimester sepsis attributed to retained POC. However, her preceding respiratory illness may have been an antecedent event of non-invasive GAS prior to development of iGAS. In patients with pharyngitis, respiratory symptoms or cellulitis, clinicians should consider GAS as a potential diagnosis.

References

1. Harris K, Proctor LK, Shinar S, Philippopoulos E, Yudin MH, Murphy KE. Outcomes and management of pregnancy and puerperal group A streptococcal infections: A systematic review. Acta Obstet Gynecol Scand. 2023;102(2):138-57.
2. Hamilton SM, Stevens DL, Bryant AE. Pregnancy-related group a streptococcal infections: temporal relationships between bacterial acquisition, infection onset, clinical findings, and outcome. Clin Infect Dis. 2013;57(6):870-6.
3. Butler TAJ, Story C, Green E, Williamson KM, Newton P, Jenkins F, et al. Insights gained from sequencing Australian non-invasive and invasive Streptococcus pyogenes isolates. Microb Genom. 2024;10(1).
4. Khalil A, Samara A, O'Brien P, Ladhani SN. Do not forget pregnant and post-partum women during group A streptococcal disease outbreaks. The Lancet Microbe. 2023;4(6):e382-e3.