Bilateral tubo-ovarian abscess and sepsis caused by *Salmonella* in patients with systemic lupus erythematosus

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DESCRIPTION

A 39-year-old woman was admitted to the emergency department due to abdominal pain. Her history included systemic lupus erythematosus (SLE) and use of immunosuppressive drugs. The patient's general condition was poor with fever and tenderness in the abdomen. Laboratory tests revealed leukopenia ($3800/\text{mm}^3$), elevated C reactive protein (112 mg/dL) and international normalized ratio (INR 11). In contrast-enhanced CT, bilateral tubo-ovarian abscess was observed sized 86×44 and 95×88 mm (figures 1 and 2). The patient was operated after INR level normalised by fresh frozen plasma. She was started on intravenous imipenem/cilastatin therapy empirically. *Salmonella* spp. was isolated from the blood specimen and abscess material. *Salmonella* spp. are susceptible to cefepime, ceftazidime trimethoprim-sulfamethoxazole, piperacillin-tazobactam, tigecycline and colistin. But the patient's general condition did not improve, and she died on the fourth day of hospitalisation despite

proper treatment. Non-typhoidal salmonellosis is a food-borne infection that occurs in patients throughout the world, especially in immunocompromised patients. The common risk factors include old age, malignancy, diabetes, rheumatological disorders, immunosuppressive therapy and HIV.¹ Patients with SLE are predisposed to non-typhoidal *Salmonella* infection with high incidence of bacteraemia and abscess formation. Infection-related mortality rate in patients with connective tissue diseases (CTDs) was 2.1–79%. The rate of infection-related mortality in SLE is higher than other CTDs, although 83% of these patients receiving appropriate antimicrobial agent within 72 h.^{2–3} Ruptured ovarian cysts, adnexal mass, chronic ectopic pregnancy and malignancy should be considered in the differential diagnosis of tubo-ovarian abscess.⁴

Figure 1 Bilateral tubo-ovarian abscess (arrow).

Figure 2 Bilateral tubo-ovarian abscess (arrow).

Learning points

- ▶ Non-typhoidal *Salmonella* (NTS) often results in self-limited infection; however, invasive disease can occur with bacteraemia and subsequent focal infections.
- ▶ NTS invasive disease is a rare entity in immunocompetent persons.
- ▶ Patients with systemic lupus erythematosus (SLE) can be seen either with NTS bacteraemia and abscess.
- ▶ Despite appropriate antibiotic treatment, infection-related mortality rates are high with patients with SLE.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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To cite: Guler S, Oksuz H, Cetin GY, et al. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2013-200187

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