

Rapid diagnosis of *Campylobacter jejuni* by stool Gram stain examination

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DESCRIPTION

Microscopic stool examination by Gram stain is useful for rapid diagnosis and treatment of *Campylobacter* infection in patients with acute onset diarrhoea. A 69-year-old Japanese woman with pernicious anaemia presented with a 3-day history of fever and watery diarrhoea. On examination, her mental status was normal and general appearance was not in acute distress. Blood pressure was 115/43 mm Hg, pulse rate 131 bpm and regular, respiration rate 20 breaths/min and temperature 39°C. The palpebral conjunctivae were anaemic and tongue surface was atrophic and dry. Cardiovascular and lung examinations revealed no abnormality except for tachycardia. Abdominal examination revealed normal bowel sounds and mild tenderness on the right lower quadrant without rebound tenderness. Laboratory data showed elevated leucocyte count and macrocytic anaemia. The faecal Gram stain examination revealed numerous Gram-negative rods of gull-winged form (figure 1). Oral erythromycin was prescribed based on a diagnosis of *Campylobacter*

enteritis. Two days after the first visit, her symptoms were improved and the stool culture grew *Campylobacter jejuni*. *Campylobacter* species are a frequent cause of infectious enteritis. Although its definitive diagnosis requires culture results, the stool Gram stain finding of gull-wing-shaped Gram-negative rods has good sensitivity and specificity.^{1 2} The Gram stain examination has low cost and provides real-time diagnosis that can lead to immediate and appropriate treatment.

Learning points

- ▶ Stool Gram stain examination leads to timely diagnosis and treatment of *Campylobacter* infection in patients with acute onset diarrhoea.
- ▶ Gram stain examination is a precious and inexpensive tool for managing common infectious diseases.
- ▶ The presence of Gram negative rods with gull-wing shape in stools of diarrhoea patients suggests *Campylobacter jejuni* enteritis.

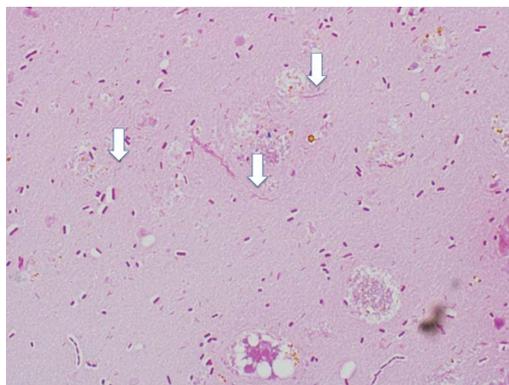


Figure 1 White arrow indicates gull-wing-shaped Gram-negative rods.

Contributors YT cared the patient and YT and KK wrote the manuscript.

Competing interests None.

Patient consent Obtained.

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