

Burkholderia cepacia: A Rare Cause of Chronic Diarrhoea

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Introduction

The *Burkholderia cepacia* complex (Bcc) is a group of at least 24 closely related Gram-negative, aerobic, non-fermenting bacilli found in soil and water. It is an opportunistic pathogen, typically causing respiratory infection in cystic fibrosis or hospitalised patients; gastrointestinal involvement is rare.

Case Presentation

- **37-year-old woman**, treated for ovarian cancer: TAH-BSO (Feb 2023) + 6 cycles carboplatin/paclitaxel, completed 6 months earlier.
- **3 months** of watery, greenish, non-bloody, large-volume diarrhoea: 5 episodes/day + 1 at night, with mild diffuse abdominal pain.
- No fever, weight loss, travel, antibiotic use, hospitalisation, TB contact or food triggers.
- BMI 30.8 kg/m²; abdomen soft and non-tender; no signs of malnutrition or hyperthyroidism.
- Three stool samples (ova, cysts, parasites, culture): **normal**.

Investigations

Test	Result	Reference
Haemoglobin	10.9 g/dL	11 - 14.4
MCV	63.6 fL	77.8 - 96.2
WBC	9.42 x10 ³ /uL	4.52 - 10.93
Albumin	4.98 g/dL	3.5 - 5.2
HbA1c	5.4%	< 6.5%
TSH	1.094 uIU/mL	0.4 - 4.2
Anti-tTG IgA/IgG	2.3 / 1.7 U/mL	< 10

Discussion and Conclusion

- Bcc is intrinsically resistant to polymyxins, aminoglycosides and beta-lactams; it is linked to hospital outbreaks via contaminated water-based products.
- Isolation from a low-bioburden site (duodenum), absence of other pathogens and **clinical cure after targeted therapy** support a true pathogenic role rather than contamination.
- Chemotherapy and malignancy-related immune dysregulation, with gut mucosal and microbiota disruption, may have predisposed her.
- **Take-home:** consider atypical opportunistic pathogens in unexplained chronic diarrhoea, especially after healthcare exposure or malignancy.

Endoscopy and Histology

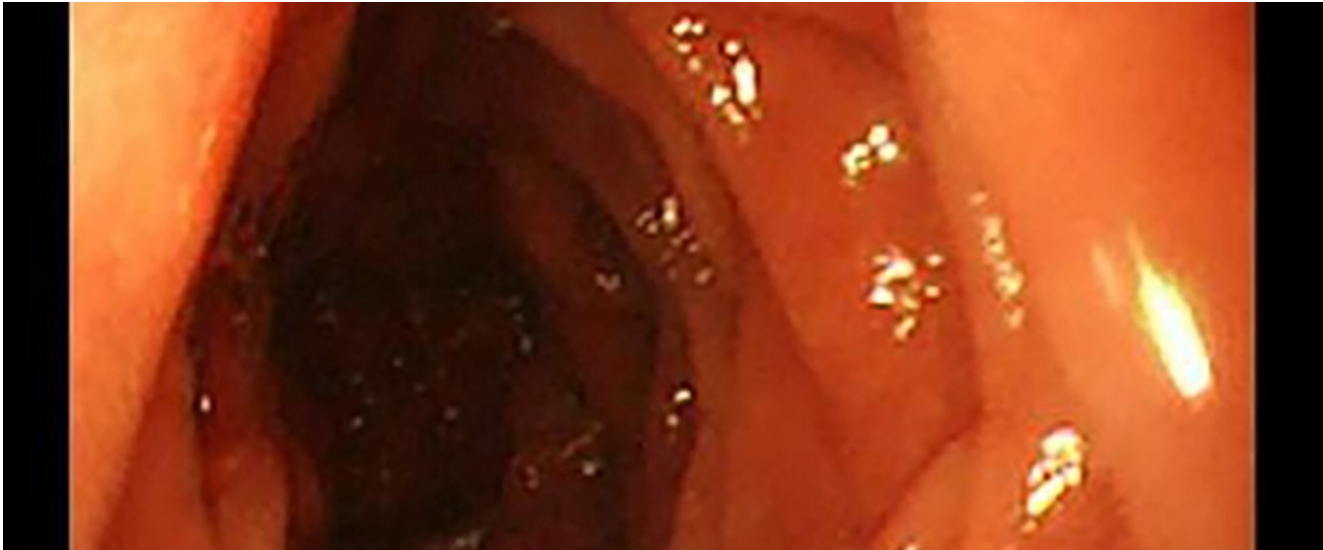


Fig. 1: EGD, second part of duodenum: normal.

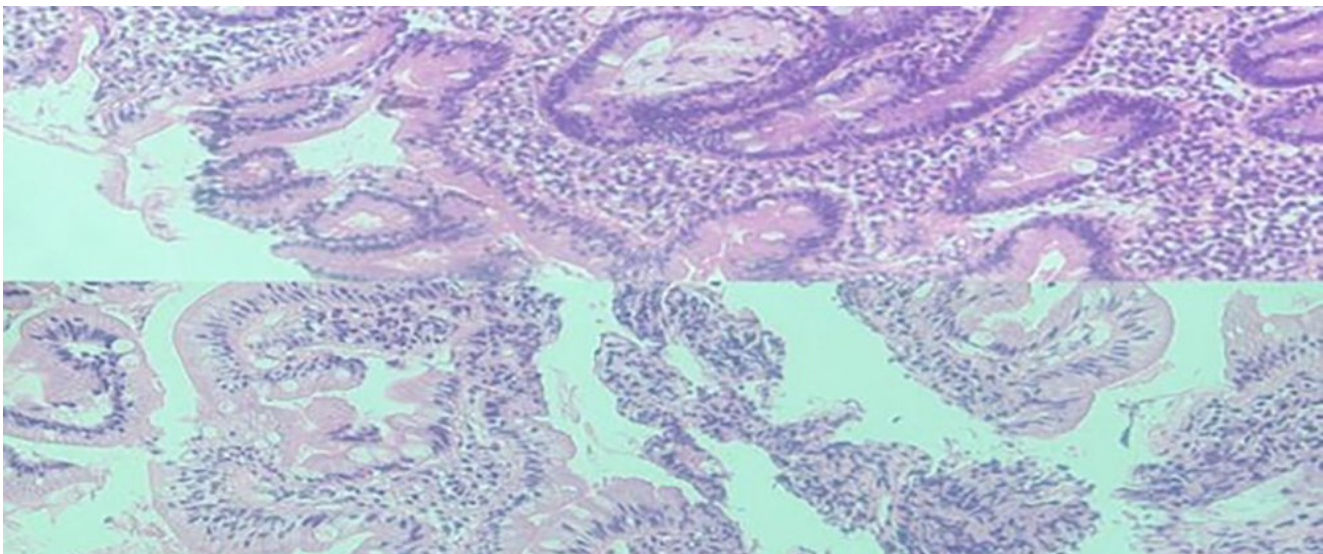


Fig. 2: Histology (H&E, x200): mild chronic duodenitis.

Microbiology and Outcome

- Duodenal aspirate grew a **non-lactose-fermenting Gram-negative bacillus**.
- Vitek MS: ***B. cepacia***. Susceptible: co-trimoxazole, levofloxacin, minocycline; resistant: ceftazidime, meropenem.
- Treated with **levofloxacin 750 mg daily for 7 days** (with ID team).
- **Diarrhoea completely resolved** at 2-week follow-up.