

Colonic Carcinoma With Neuroendocrine Features Diagnosed in the Setting of Enterococcus faecalis Bacteremia, Endocarditis and Embolic Phenomenon

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INTRODUCTION

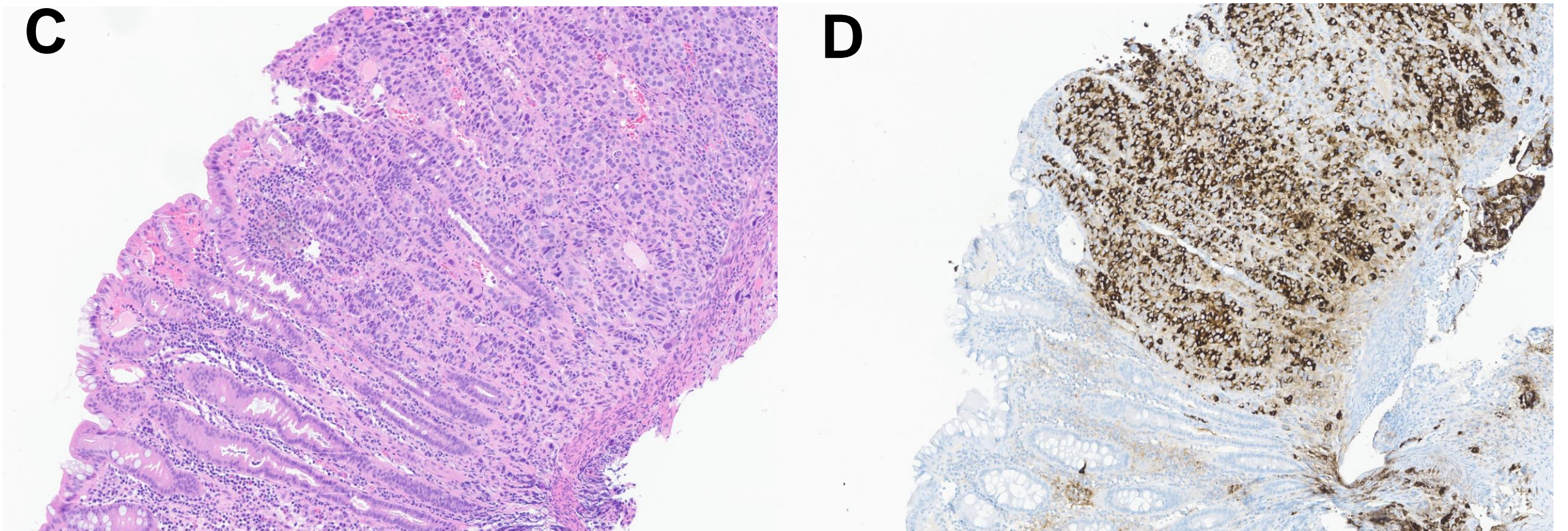
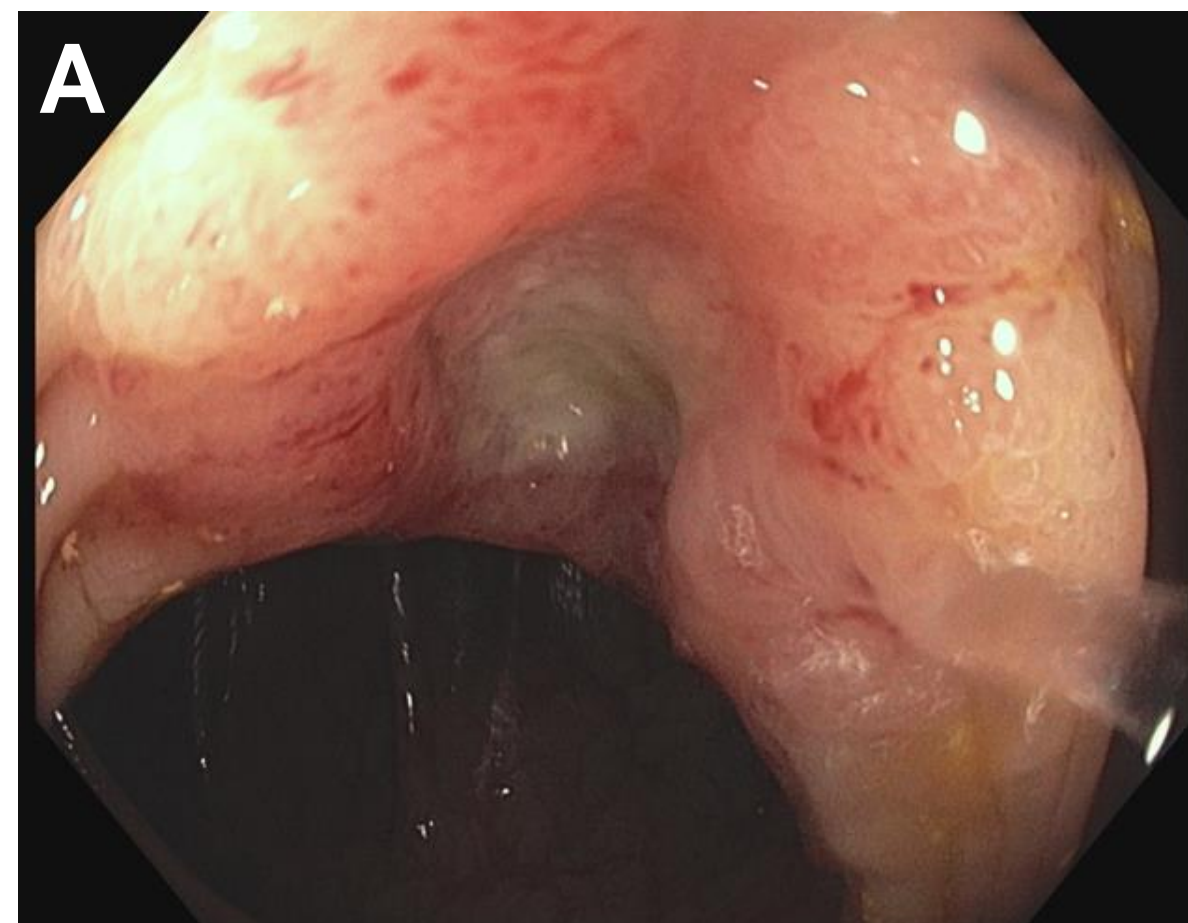
- We present a case of colonic carcinoma with neuroendocrine differentiation presenting with Enterococcus faecalis bacteremia and endocarditis.

CASE DESCRIPTION

- A 77-year-old man with a history of hypertension, hyperlipidemia, prior ischemic stroke, and chronic back pain presented with fever and confusion 3 days after undergoing a lumbar epidural steroid injection.
- Multiple sets of blood cultures grew **Enterococcus faecalis**.
- His CRP was elevated at 86.
- An MRI scan of the spine was negative for epidural abscess.
- Brain MRI revealed **multiple acute embolic infarcts**.
- Transthoracic echocardiography revealed a mobile 8mm vegetation, and transesophageal echocardiography confirmed **mitral valve endocarditis**.
- CT of the abdomen and pelvis revealed **colonic wall thickening** at the hepatic flexure with coexistent fat stranding and lymphadenopathy.]
- Subsequent colonoscopy revealed a 1 cm **solitary cratered ulcer** with heaped up borders at the hepatic flexure (Figure A).

CASE DESCRIPTION (COND'T)

- Histopathology demonstrated a **high-grade carcinoma** immunophenotypically positive for colonic (CDX2+, SATB2+, CK20+, CK7-) and **neuroendocrine differentiation** (chromogranin+, synaptophysin+) (Figure C, D).
- The favored diagnosis was **colonic high-grade neuroendocrine carcinoma, large cell type**.
- PET/CT Dotatate** scan was **negative** for uptake at the hepatic flexure reflecting **poor differentiation** of the carcinoma and lack of somatostatin receptors expression.
- PET/CT FDG** scan was **positive** reflecting high FDG avidity in the identified hepatic flexure **hypermetabolic lesion**, surrounding lymph nodes, and numerous hepatic lesions (Figure B).
- The patient was treated with antibiotics for endocarditis and started on carboplatin and etoposide.



DISCUSSION

- Streptococcus bovis** bacteremia and endocarditis are classically associated with **colorectal cancer**.
- Evidence is accumulating for a link between **Enterococcus faecalis**, a component of gut flora, and **colorectal adenocarcinoma**.
- The biopsies of the ulcerated mass at the hepatic flexure, in our patient with **Enterococcus faecalis** bacteremia and endocarditis, suggested a **primary colonic neuroendocrine carcinoma, large cell type**.
- Neuroendocrine tumors of the colon arise from enterochromaffin cells in the crypts of Lieberkuhn.
- Colon carcinoid tumors are rare, with an annual incidence of approximately 0.2 per 100,000.
- Most neuroendocrine tumors are asymptomatic at the time of diagnosis and often present with metastatic disease.

