



# Cytomegalovirus enterocolitis in a patient with amiodarone hypersensitivity pneumonitis

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A 78-year-old patient with known non-ischaemic dilated cardiomyopathy with reduced left ventricular ejection fraction, asthma and type 2 diabetes mellitus was treated with amiodarone from 2019. In April 2023, he developed hypersensitivity pneu-

monitis due to amiodarone and methylprednisolone (0.5 mg/kg body weight) was initiated along with prophylactic osteoporosis treatment and trimethoprim with sulphamethoxazole.

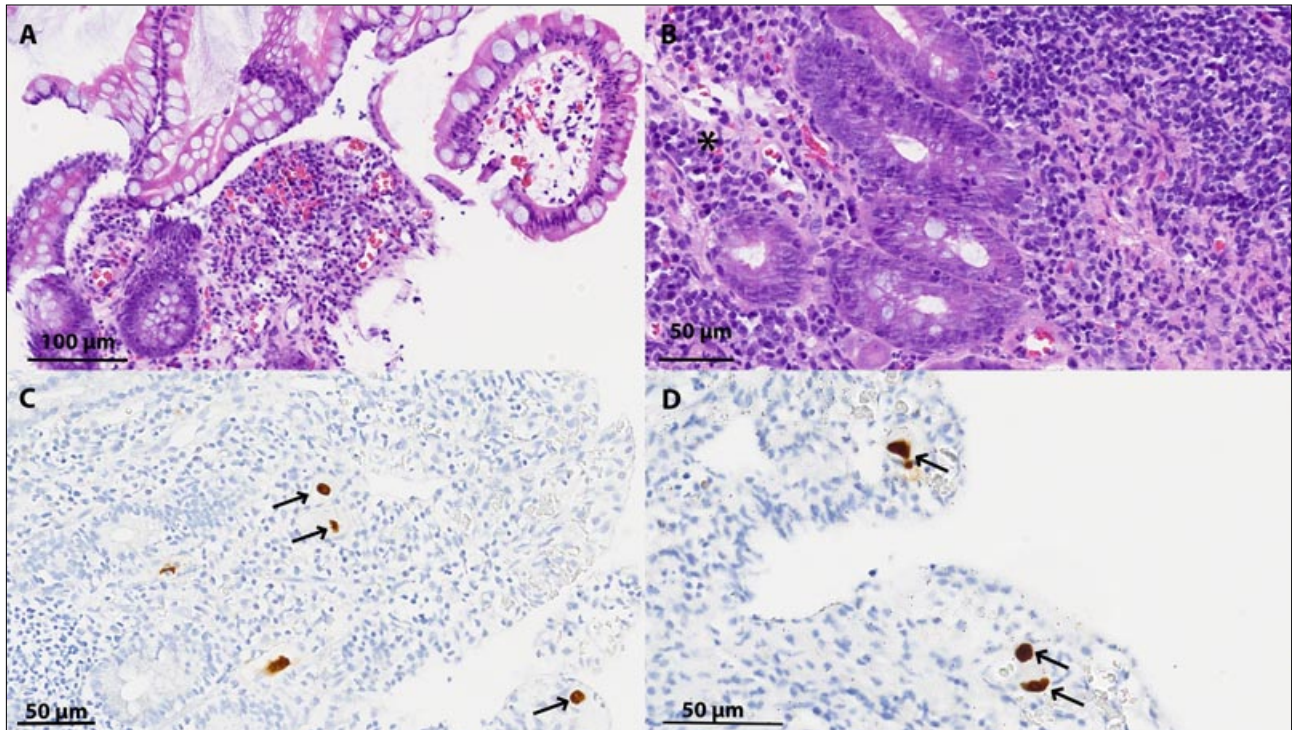


Figure 1 (a-d): Small intestinal mucosa samples. The villi were normally dense with epithelium without atypia. The lamina propria was focally mildly fibrosed, moderately infiltrated with mononuclear cell inflammatory infiltrate rich with plasma cells ((b) - area with symbol \*). A few eosinophilic and neutrophilic granulocytes were also present in the inflammatory infiltrate. Lymphatic aggregates were present. There were no signs of cryptitis, no crypt microabscesses and no epithelioid granulomas. Immunohistochemical staining revealed nuclear staining in CMV infected cells ((c, d) - marked with arrows).

On the 18th day of methylprednisolone treatment, an Addisonian crisis resulted. Subsequent investigations revealed Herpes simplex virus type 1 infection and elevated serum Cytomegalovirus (CMV) DNA levels. Gastrointestinal complications included fungal esophagitis, *Helicobacter pylori* chronic gastritis and mild chronic duodenitis.

CMV infection was histologically confirmed in the terminal ileum (Figure 1 a-d) and colonic mucosa samples. Abdominal CT confirmed infectious enteritis involving the entire small bowel (Figure 2 a-b). Ischemic colitis, coeliac disease, inflammatory bowel disease and parasitic infections were ruled out.

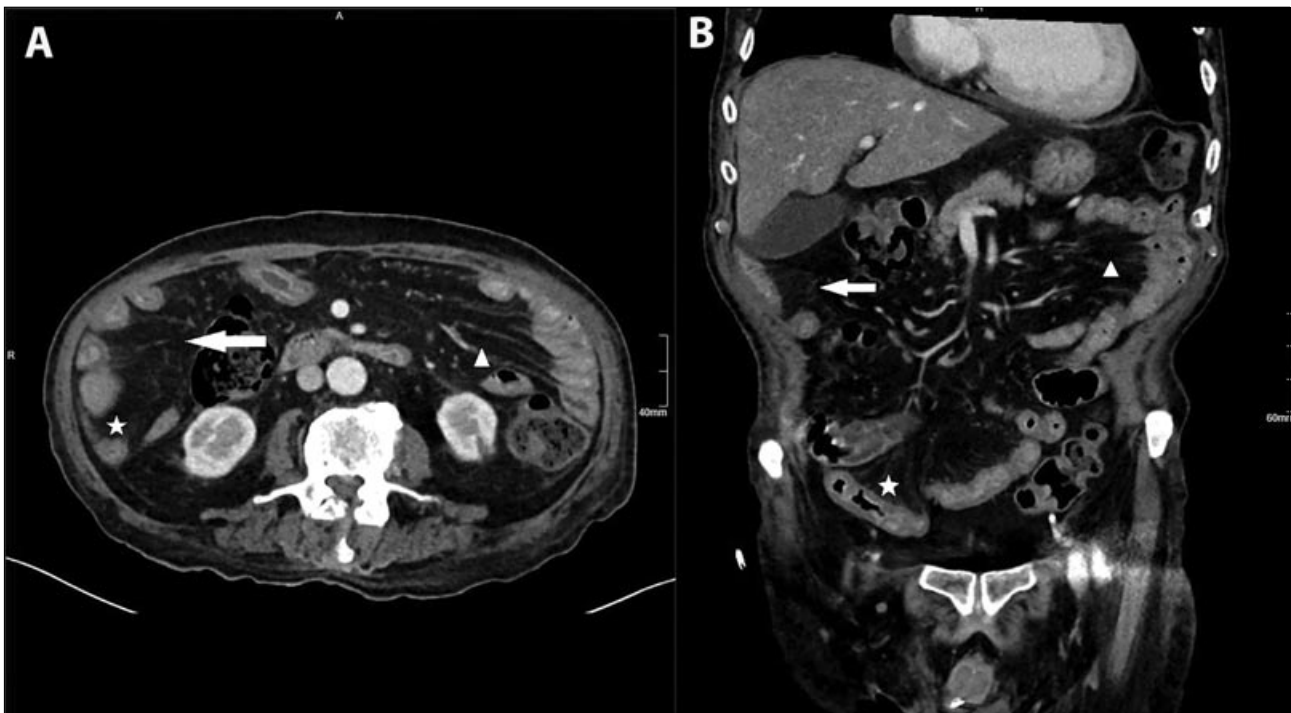


Figure 2 (a-b): Axial (A) and coronal (B) contrast-enhanced CT image showed signs of infectious enteritis. The capture shows diffuse small bowel wall thickening with mucosal hyperenhancement – so called accordion sign (asterisk) and pericentric fat stranding (arrow). It also shows mesenteric vessel engorgement (arrowhead).

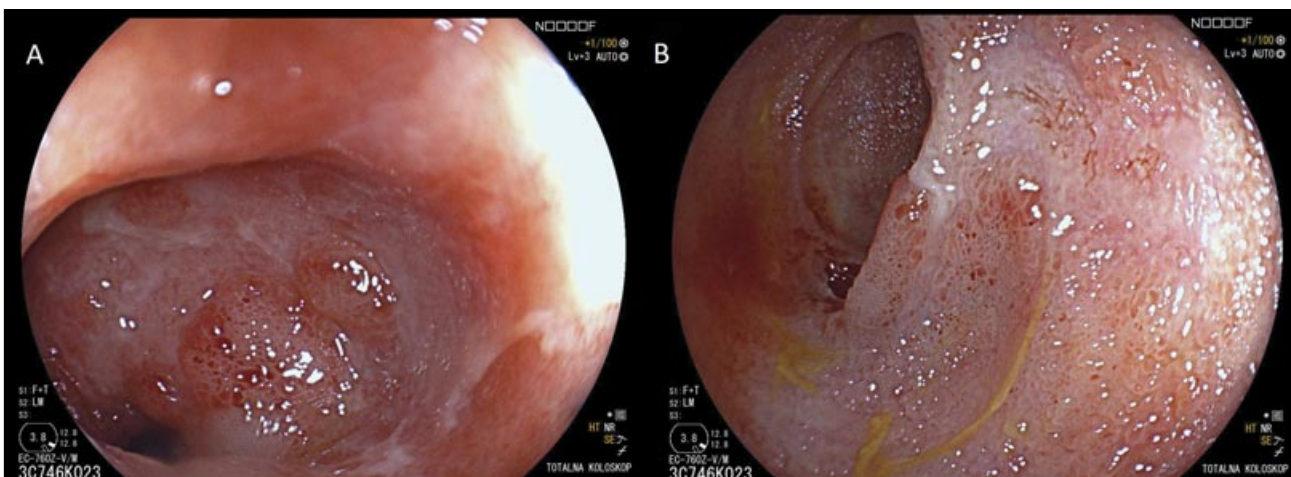


Figure 3 (a-b): Endoscopic image of terminal ileum. The capture shows mucosal inflammation, ulceration, and erythema.

Treatment with valganciclovir (900 mg BID) for six weeks was successful, leading to clinical improvement and a disappearance of CMV DNA. Follow-up endoscopic and histological examinations did not confirm the persistence of CMV infection.

Regular follow-ups continue, with the patient still receiving low-dose methylprednisolone. Further hematological evaluation is planned due to persistent monoclonal gammopathy, however until now we didn't proof lymphoma, myeloma or other hematological malignancy.

Cytomegalovirus colitis is considered in patients with AIDS, hematological malignancies or after tissue and organ transplantation. It is also appropriate to consider it in the case of immunocompromised patients after glucocorticoid therapy (1-2). We report a case of tissue-invasive CMV infection in an immunocompromised patient due to long-term corticosteroid therapy after amiodarone-induced interstitial pneumonitis.

## References:

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