Pseudoneoplastic Appearance of Cytomegalovirus Infection Mimicking Colon Carcinoma in Two Immunocompetent Patients.

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BACKGROUND

- Cytomegalovirus (CMV) induced gastrointestinal (GI) pseudotumors have been described in immunocompromised patients and can be difficult to differentiate from malignancy. Only a few cases of CMV pseudotumors have been reported in non-immunocompromised patients.

METHODS

- We describe 2 cases of CMV infection of the colon with pseudoneoplastic appearance mimicking carcinoma in non-immunocompromised patients.

RESULTS

- Patient 1
  - A 57 year-old male presented with fever, diarrhea, hematoquezia, weight loss and right lower quadrant pain. Found to have elevated CEA (5.7 ng/mL) and CMV IgG antibodies (68 AU/mL).
  - Colonoscopy revealed a large ulcerated, necrotic mass, near completely obstructing the cecum (Figure 1a). Biopsies with CMV immuno-stain were positive for CMV induced colitis.
  - Abdominal CT scan showed focal circumferential wall thickening (up to 1.4 cm) in the cecum, with extension into the proximal ascending colon and ileocecal valve.
  - He was treated with intravenous ganciclovir for 3 weeks. Repeat colonoscopy after treatment showed resolution of the pseudotumor (Figure 1b). Biopsies and immunohistochemical stain were negative for CMV. CEA was within normal limits.

- Patient 2
  - 84 year-old female with family history of colon cancer, evaluated for chronic right upper quadrant pain, string like stools and intermittent diarrhea.
  - CT abdomen demonstrated a focal thickening of the cecum. CEA was 2.8 ng/mL and CMV IgG antibodies were elevated (58 AU/mL).
  - Colonoscopy revealed a 5cm circumferential partially-obstructive mass in the proximal ascending colon. Biopsy showed viral inclusions consistent with CMV colitis (Figure 2), confirmed by immunohistochemical stain (Figure 3). No evidence of dysplasia or malignancy was found.
  - She was treated with ganciclovir for 3 weeks. Repeat colonoscopy after treatment showed improved inflammation and biopsies were negative for CMV.

CONCLUSIONS

- CMV infection of the gastrointestinal tract with lesions mimicking carcinoma have been reported mainly in immunocompromised hosts.
- In this report we present two patients immunocompetent with CMV colitis associated with pseudotumors of the colon that completely resolved with antiviral therapy.
- In immunocompetent subjects, active CMV infection is rare and can result either from endogenous reactivation of CMV or from exogenous reinfection with another virus strain. The frequency of CMV reactivation increases with age and co-morbidities.
- Although CMV colitis with pseudoneoplastic appearance is very rare in immunocompetent patients, it should be suspected and excluded since it responds very well to antiviral therapy.