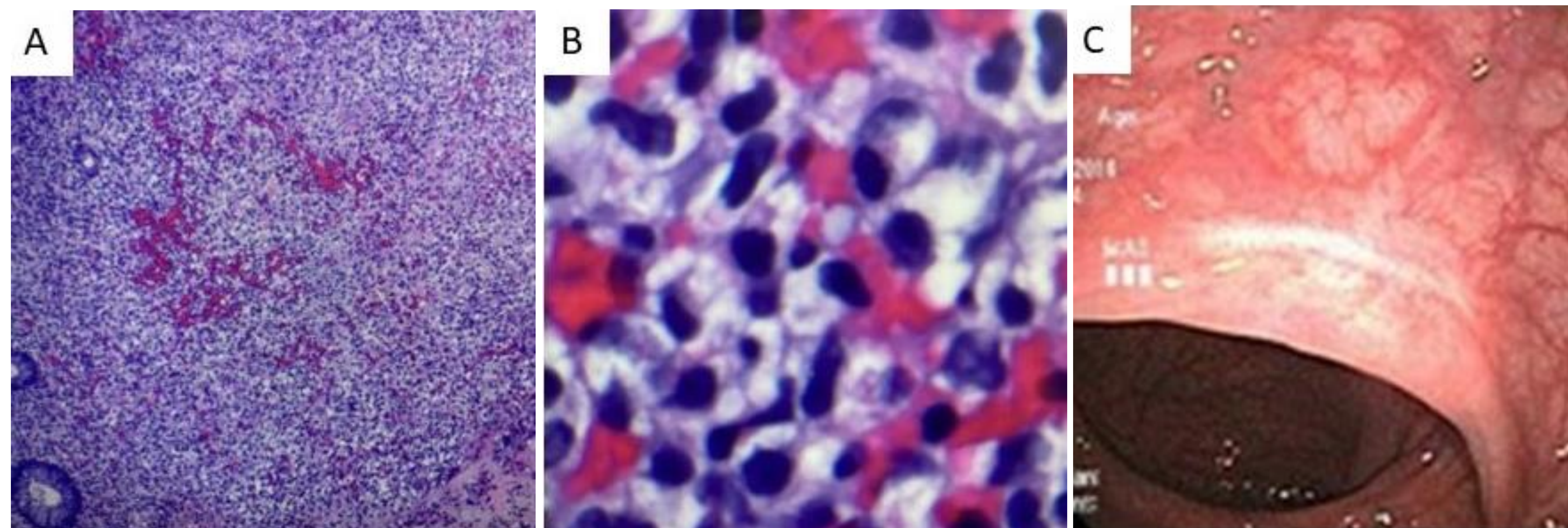


Introduction

- Natural killer (NK) cells are cytotoxic lymphocytes of the innate immune system.
- NK cell enteropathy (NKCE) is clinically indolent although histologically it resembles NK/T-cell lymphomas.¹
- Accurate diagnosis is instrumental to avoid overtreatment.¹

Case Description

- A 45-year-old female presented with two episodes of nocturnal LLQ pain lasting for 1-2 hours and notable for residual abdominal tenderness for three days. Pain was not alleviated by ibuprofen or acetaminophen.
- Subsequent bowel movements were described as bloody, skinny stools. She endorsed decreased energy over the last several months. She denied a change in weight or appetite.
- Adoption limited her awareness of family medical history.
- Physical examination and lab tests were unremarkable.



Figures (A) and (B) demonstrate the histologic findings consistent with a diagnosis of natural killer cell enteropathy. Figure (C) demonstrates the post-polypectomy scar.

Endoscopic Procedure, Biopsy, and Imaging

- Colonoscopy showed a flat, 1-cm polyp with three erosions in the rectum.
- Excisional biopsy revealed polypoid fragments of rectal mucosa with atypical lymphoid infiltrate harboring NK cell phenotype. The infiltrate involves predominantly the lamina propria and extends multifocally to the muscularis mucosa (FIG A and B).
- Immunohistochemical staining CD56 highlights the NK cells, while CD7 and BCL2 stain the T- and B-cell lymphocytes admixed with NK cells. Ki-67, a proliferative marker, is positive in approximately 90% of the lesional cells. These results are consistent with NKCE.
- The CT was unremarkable.

Management

- It was decided to manage her conservatively. Repeat colonoscopy revealed a post-polypectomy scar in the rectum (figure C), which was negative for abnormal cells.
- She followed up with oncology and has been in remission for more than 5 years. Her most recent colonoscopy still showed an unchanged rectal scar.

Discussion

- The lack of systemic symptoms, isolated colon location, and negative EBV staining point toward NKCE rather than lymphoma.
- Since NKCE mimics NK/T-cell lymphoma, it is important to accurately diagnose the disease to prevent erroneous, aggressive treatment.
- Further research should explore the appropriate standard of care for patients with NKCE.

References

1. Mansoor A, Pittaluga S, Beck PL, Wilson WH, Ferry JA, Jaffe ES. NK-cell enteropathy: a benign NK-cell lymphoproliferative disease mimicking intestinal lymphoma: clinicopathologic features and follow-up in a unique case series. *Blood*. 2011;117(5):1447-1452. doi:10.1182/blood-2010-08-302737