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Peer Review

Review of: "Histopathologic Evaluation and Single-Cell Spatial Transcriptomics of the Colon Reveal Cellular and Molecular Abnormalities Linked to J-Pouch Failure in Patients with Inflammatory Bowel Disease"

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The paper by Andrea Olivas et al. considers patients diagnosed with ulcerative colitis who underwent IPAA surgery between 2000 and 2010 at the University of Chicago Medical Center. The authors reviewed various histopathological and molecular features to correlate them with pouch failure. They have identified the following factors as major risks of pouch failure: deep chronic inflammation and severe disease activity evaluated on the surgical specimen; immune infiltration of T and myeloid cells; and increased cytokine signaling pathways of IL-10, IL-1beta, and type I/II interferons. Their study was conducted very carefully, investigating many inflammatory factors that can indicate from the time of colectomy the probability that colitis could be a manifestation of Crohn's disease. It would be interesting to know if the results of the histopathological investigation are sufficient to identify patients at risk or if spatial transcriptomics is more reliable. Another thing that could be useful in the clinic is the specific state of the terminal ileal mucosa observed on the proximal section of the surgical specimen: whether a nonspecific ileitis or a backwash ileitis correlates with pouch failure. Another point that I suggest clarifying to the authors is how much the medical therapy performed for the onset of pouchitis can influence this review. For example, if some patients have undergone biological treatments for the occurrence of a chronic pouchitis that could have saved the pouch.

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Declarations

Potential competing interests: No potential competing interests to declare.