

Novel insights on 'leaky' gut

20 July 2018, by Niyati Vachharajani

Inflammatory bowel disease (IBD) is characterized by chronic inflammation of the small and the large intestine. IBD patients experience bloody diarrhea and abdominal pain and have an increased risk of developing colon cancer.

Disruption of the integrity of the intestinal lining or epithelium contributes to a "leaky" gut and is a common feature of patients with IBD. Tight junctional complexes, highly specialized structures at the apical tip of [epithelial cells](#), are critical to maintaining the epithelial barrier.

Yash Choksi, MD, Christopher Williams, MD, Ph.D., and colleagues explored the role of a tight junction-associated transmembrane protein, blood vessel epicardial substance (BVES), in mouse models of colitis.

Last month in the journal *Mucosal Immunology*, they reported that mice lacking BVES have more severe experimental colitis as a consequence of compromised epithelial barrier function. More importantly, BVES mRNA levels were reduced in human ulcerative colitis biopsy specimens.

These findings suggest that BVES plays a protective role in ulcerative and infectious colitis and highlights its role in maintaining colonic mucosal integrity.

More information: Yash A. Choksi et al. BVES is required for maintenance of colonic epithelial integrity in experimental colitis by modifying intestinal permeability, *Mucosal Immunology* (2018). [DOI: 10.1038/s41385-018-0043-2](https://doi.org/10.1038/s41385-018-0043-2)

Provided by Vanderbilt University

APA citation: Novel insights on 'leaky' gut (2018, July 20) retrieved 5 June 2022 from <https://medicalxpress.com/news/2018-07-insights-leaky-gut.html>

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