

## **DISTINCTIVE MICROBIOTA AND DENDRITIC CELL ACTIVATION CHARACTERIZE THE APPENDIX OF ULCERATIVE COLITIS PATIENTS**

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UEG Week Copenhagen 2023

Poster

IBD

October 15, 2023

**A preliminary study of 27 appendix tissue samples found that the ulcerative colitis appendix harbors a distinct microbial community with significantly reduced abundance of five bacterial species compared to non-UC appendix.**

### KEY POINTS

- The UC appendix showed significantly different microbial communities compared to non-UC appendix by PERMANOVA test ( $p=0.015$ ), with Firmicutes most abundant (mean 72.6%) followed by Proteobacteria (16%).
- Five bacterial species were significantly decreased in UC appendix: *Fusobacterium* unknown species, *Pseudoramibacter* unknown species, *Streptococcus anginosus*, *Mogibacterium* unknown species, and *Actinomyces hyovaginalis*.
- CD86 expression on activated dendritic cells was significantly higher in UC patients than appendicitis patients ( $p=0.049$ ) and directly correlated with disease activity by Harvey Bradshaw Index.
- *Fusobacterium* unknown species abundance inversely correlated with activated dendritic cell CD86 mean fluorescence intensity ( $\rho=-0.466$ ,  $p=0.047$ ).
- The authors conclude that these preliminary findings suggest a distinctive UC appendix microbiota exists and may provide microbial signatures useful for guiding UC treatment and diagnosis.

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