

MICROBIOME SIGNATURES ASSOCIATED WITH COLORECTAL POLYP MORPHOLOGY AND THEIR DIETARY CORRELATIONS: A CROSS-SECTIONAL STUDY OF 801 PATIENTS

Jonathan Lee

UEG Week Berlin 2025

Presentation

Digestive Oncology

Gut Microbiota

Immunology

Mechanisms & Personalised Medicine

Colorectal

October 6, 2025

A cross-sectional metagenomic study of 801 Singaporean patients identified distinct gut microbial signatures for tubular adenomas and sessile serrated lesions, with SSL-associated microbes correlating positively with dietary sugar intake.

KEY POINTS

- After adjustment for age, gender, and BMI, 38 microbial species were significantly associated with polyp subtypes: 20 with SSL and 18 with TA, with minimal overlap suggesting separate biological pathways.
- SSL were associated with increased abundance of *Faecalibacterium* SGB15346 and *Bifidobacterium adolescentis*, while TA showed loss of butyrate producers.
- SSL-associated microbes correlated positively with sugar intake, including *Faecalibacterium* SGB15346 ($r=0.170$, $p=0.03$) and *E. hominis* with carbohydrate ($r=0.243$, $p<0.01$) and starch ($r=0.246$, $p<0.01$).
- Only two species were associated with both polyp types: *Holdemanella bififormis* and GGB3277_SGB4327, with the latter showing opposing directional relationships.
- The findings offer potential microbial biomarkers for early polyp detection and suggest targeted dietary interventions as a strategy for precision chemoprevention, though validation in larger cohorts is needed.

VIEW THIS CONTENT ON GUTFLIX

<https://gutflix.eu/search/d/3fd268e4-a815-11f0-8603-0242ac140006>



AI-generated summary

This summary was generated by an AI large language model based on the content transcript. It is for informational purposes only and should not be considered a substitute for clinical judgment. Always rely on your professional expertise and the full clinical context when making clinical decisions.