

EFFECT OF FERMENTABLE OLIGO-, DI-, MONOSACCHARIDES, AND POLYOLS ON FUNCTIONAL DYSPEPSIA SYMPTOMS, GASTROINTESTINAL VOLUMES AND GUT HORMONES: A DOUBLE-BLIND RANDOMIZED PILOT TRIAL

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UEG Week Berlin 2025

Poster

Oesophagus

October 4, 2025

A pilot study using MRI and hormone measurements found that functional dyspepsia patients responding to low FODMAP diet showed increased symptom burden, reduced GLP-1 and GIP release, and larger colonic gas volumes compared to healthy volunteers after mannitol or glucose meals, despite similar gastric emptying rates.

KEY POINTS

- FD patients exhibited significantly more symptoms than healthy volunteers after both glucose-rich meals (54 vs 24, $p=0.02$) and mannitol-rich meals (64 vs 23, $p=0.01$), though no difference was found between mannitol and glucose within the FD group
- Postprandial GLP-1 levels were significantly lower in FD patients versus healthy volunteers after mannitol at 15 min ($p=0.02$) and 30 min ($p=0.001$), and GLP-1 AUC was lower in FD after both mannitol ($p=0.04$) and glucose ($p=0.04$) meals
- Colonic gas volume increased significantly more in FD patients after mannitol (15.45 mL) compared to glucose (-0.35 mL), while gastric emptying half-time did not differ between groups
- Small bowel water content increased after mannitol in both FD ($p=0.01$) and healthy volunteers ($p=0.01$), and GIP AUC was significantly lower after mannitol versus glucose in FD patients ($p=0.002$)
- GI symptom scores did not correlate with peptide hormone levels or gastric emptying, suggesting the mechanisms underlying decreased hormone release and symptom generation require further investigation

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