

PALMITOYLETHANOLAMIDE IMPROVES DUODENAL BARRIER FUNCTION IN PATIENTS WITH FUNCTIONAL DYSPEPSIA WITHOUT AN EFFECT ON SYMPTOMS AND DUODENAL IMMUNE CELL INFILTRATION: A RANDOMIZED PLACEBO-CONTROLLED DOUBLE-BLIND TRIAL

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UEG Week Berlin 2025

Poster

Oesophagus

October 7, 2025

A randomized placebo-controlled trial found that palmitoylethanolamide supplementation did not improve symptoms in functional dyspepsia patients but showed improved duodenal barrier function primarily in those taking proton pump inhibitors.

KEY POINTS

- 61 functional dyspepsia patients were randomized to PEA 400 mg three times daily or placebo for 8 weeks after a 2-week run-in period.
- No significant differences were found between PEA and placebo for the primary endpoint of LPDS symptom scores (1.5 ± 0.2 vs. 1.3 ± 0.2 , $p=0.47$), gastric emptying, transepithelial electrical resistance, or duodenal mast cell counts.
- FITC D4 flux, a measure of paracellular permeability, tended to be lower after PEA treatment (27.9 ± 1.9 vs. 33.3 ± 2.2 pmol, $p=0.06$), with a significant effect in patients taking proton pump inhibitors ($\Delta -3.8 \pm 3.4$ vs. 7.2 ± 2.8 pmol, $p=0.027$).
- In PEA-treated patients, changes in paracellular flux correlated negatively with changes in total symptom scores ($r=-0.49$, $p=0.02$) and changes in mast cell counts correlated positively with changes in fullness symptoms ($r=0.49$, $p=0.04$).
- This trial is relevant to gastroenterologists and researchers investigating treatment options for functional dyspepsia and the role of duodenal barrier function in symptom generation.

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