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LOW FREQUENCY MAGNETIC FIELD (LIMFA) TREATMENT IN PATIENTS WITH FUNCTIONAL DYSPEPSIA

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Disclosures



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**I have NO actual or potential
conflict of interest in relation to
this presentation**



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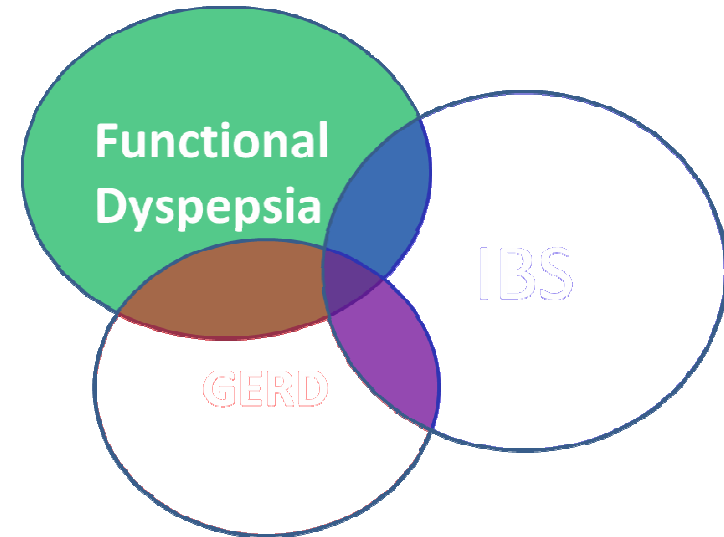
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ROME III One or more of:

- Bothering postprandial fullness
- Early satiation
- Epigastric pain
- Epigastric burning

AND

- No evidence of structural disease (including at upper endoscopy) that is likely to explain the symptoms.



Conventional medical therapy has a limited efficacy

- Prokinetics
- PPI, H2RA +/- bismuth, sucralfate
- antidepressant drugs (Mirtazapine)
- dietary and psychosocial advice



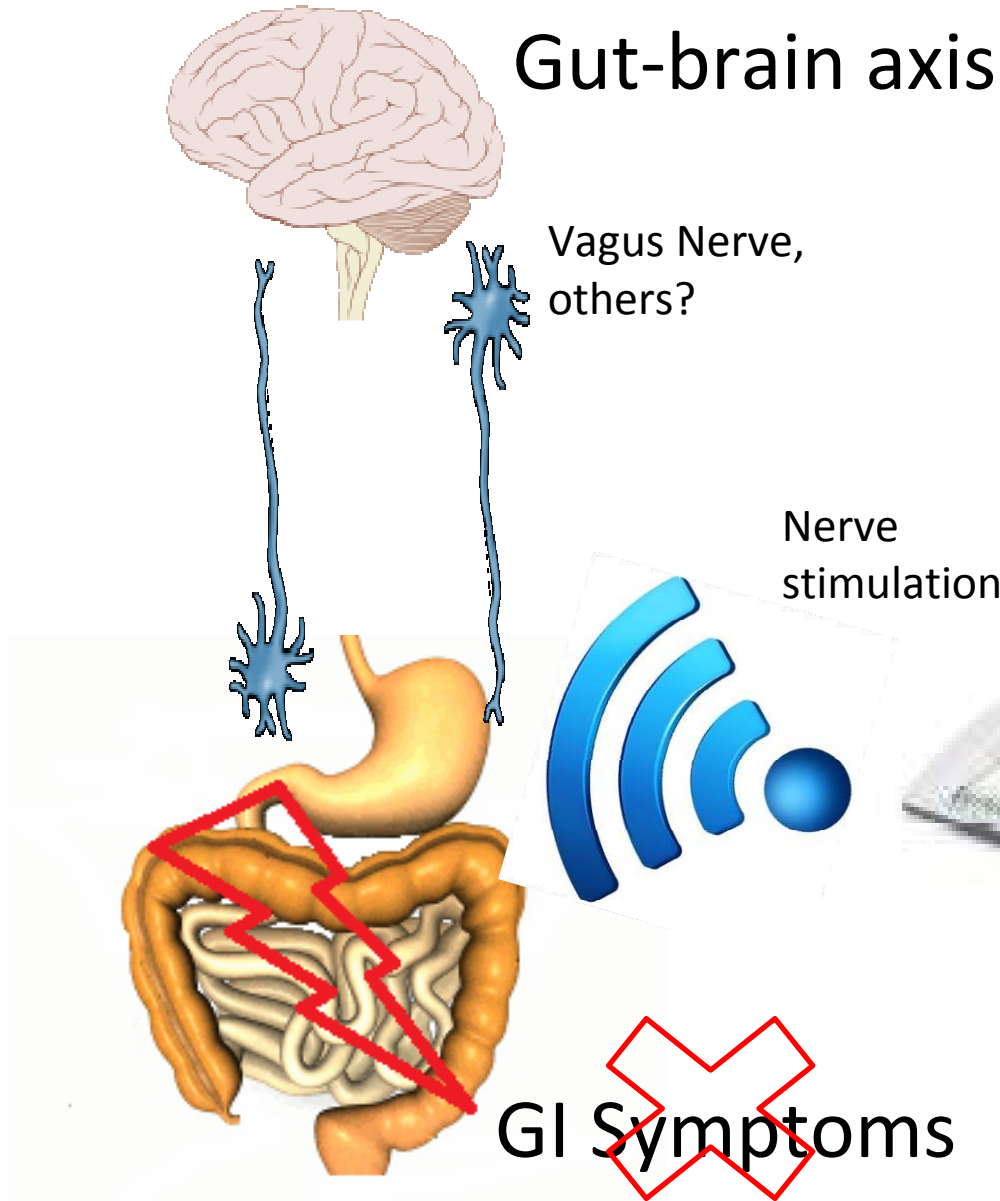
Background

Low Intensity Magnetic Field



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- The LIMFA is a medical tool that produces low intensity electromagnetic signals.
- The frequency and intensity of these magnetic fields created are similar to that created from the cellular activity.
- For this reason it has been hypothesized that the magnetic fields produced by the instrument might interplay with the endogenous cellular magnetic fields (cyclotronic ionoresonance, Liboff 1995).
- These interactions may induce changing in cellular permeability and nerve fibers activation.





AIMS

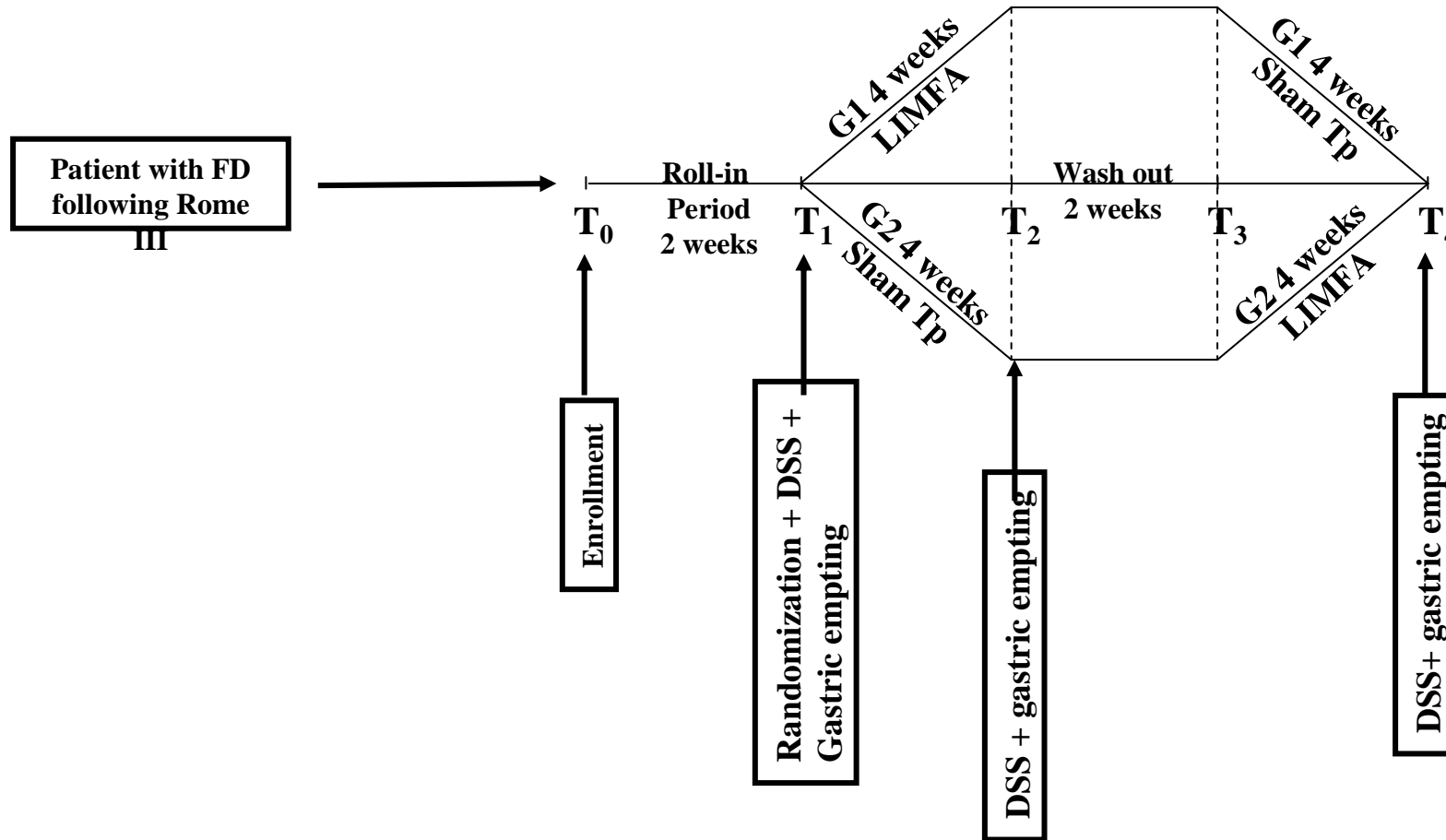


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- To test the clinical benefit of a new low intensity magnetic field instrument in patients with Functional Dyspepsia (FD)

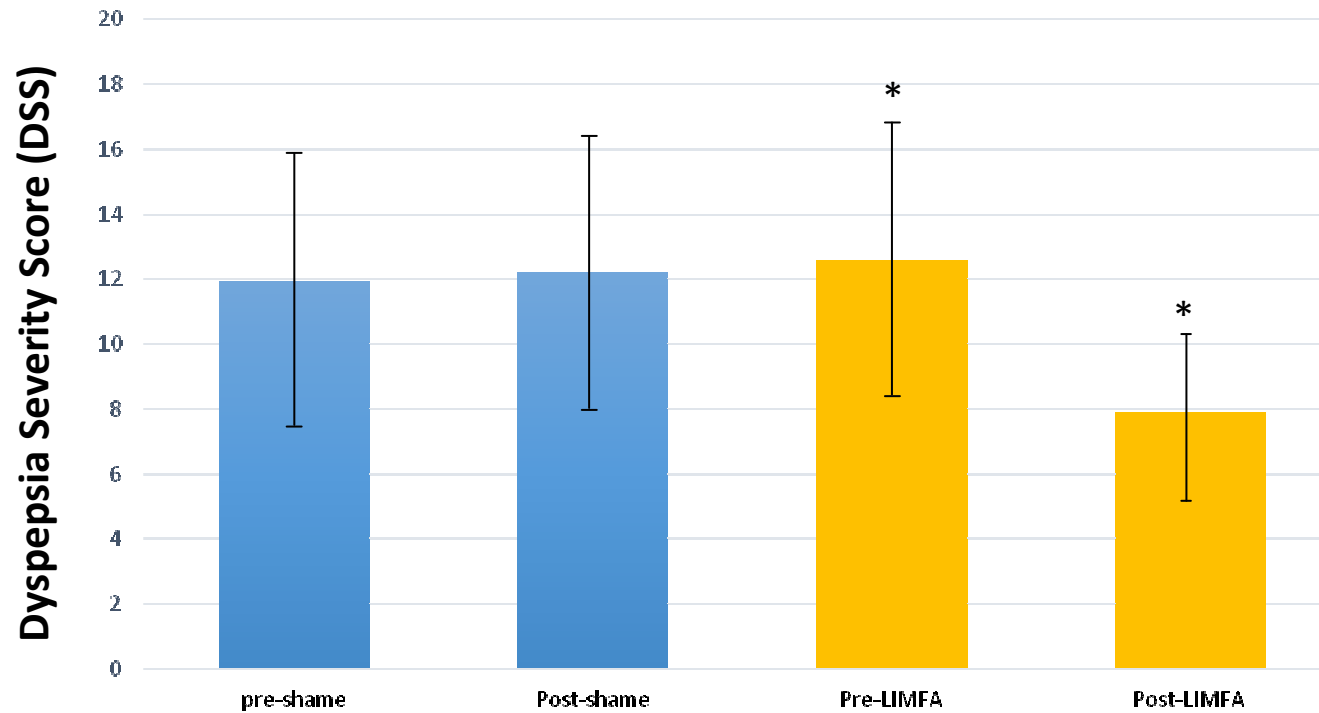
- We prospectively enrolled 20 FD patients following Rome III criteria (9 M, 11 F), mean age 38 ± 9 years.
- Patients were randomized to receive a 1 hour weekly treatment with LIMFA or sham treatment in a single blind cross over trial.
- All the patients followed thier usual diet and physical activity
- We evaluate the symptoms using a Dyspeptic Symptoms Severity score (DSS) as the sum of 8 symptoms (epigastric pain, postprandial fullness, upper abdominal bloating, early satiation, nausea, vomiting, epigastric burning, total global assessment) evaluated with a Linkert scale.
- Gastric emptying was studied using a standardized ultrasound method.

Patients and Methods



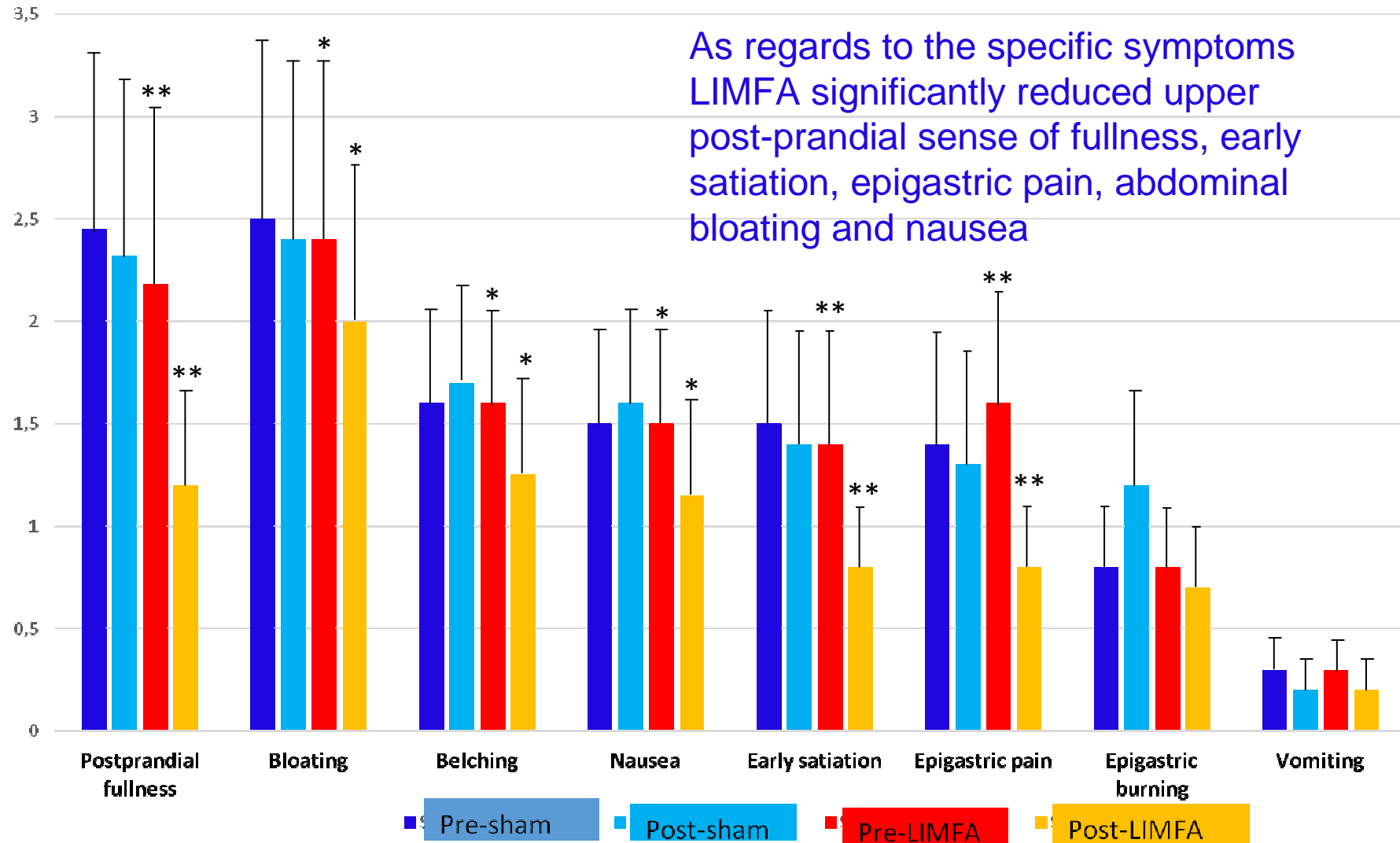
Results

Symptomatology



LIMFA treatment significantly reduce the magnitude of symptoms (7.9 ± 1.3 vs. 12.6 ± 1.6 for FD)

Results



Results

Gastric Emptying



- The median value of gastric emptying rate (GER) didn't change after LIMFA and Sham treatment.
- GER was expressed as the percentage change of antral cross sectional area from 15 to 90 min

	Gastric emptying rate (GER)
Pre-Sham	34,2%
Post-Sham	36,1% (26-72%)
Pre-LIMFA	35%
Post-LIMFA	36,2% (27-72%)

- Conventional medical therapy has a limited efficacy in Functional Dyspepsia (FD)
- LIMFA therapy seems to be effective in reducing symptoms in patients with FD
- LIMFA therapy could be an option for patients non responding to conventional medical treatment
- Further studies are needed to confirm these observation