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**Title: Effect of low frequency magnetic field in patients with irritable bowel treatment; a new effective agent.**

#### ABSTRACT BODY

Irritable bowel syndrome (IBS) is a functional bowel disorder characterized by abdominal discomfort or pain associated with changes in bowel frequency or stool consistency. Therapy is suboptimal.

To evaluate the effect on IBS symptoms of a new instrument . low intensity magnetic field orthosystem (LIMFA).

Methods: forty prospectively enrolled IBS patients (21 female and 19 males, age 41+ 11 years) were randomized to adopt a 1 hour weekly treatment with LIMFA or sham treatment in a cross-over randomized study.

Study strategy includes: a 2 weeks roll-in period, a 4 weeks treatment period and a 2 weeks wash-out period. During each period principal symptoms (abdominal pain, bloating and bowel disturbances: VAS 0-10) and composite IBS score calculated as the sum of the three symptoms (VAS 0-30) were recorded daily.

Bowel movement, stool consistency and global self-assessment (Likert scale) were also recorded. Rome III criteria were adopted.

Results: the patients on active treatment showed a significant reduction in symptoms in comparison to the sham treated patients; bowel movement abnormality was reduced only in patients receiving the active treatment starting from the first week and lasting for the wash-out period. Also the composite score showed a reduction in treatment and wash-out period only in the active group. Global self assessment showed a significant better trend in patients treated versus those receiving the sham treatment.

Conclusions: LIMFA is effective in alleviating symptoms in IBS. The effect of LIMFA on intestinal microbioma may be involved.

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