

New mint on the block – Fresh hope for IBS treatment?

Irritable bowel syndrome (IBS) is one of the most prevalent and expensive conditions in gastroenterology, incurring high costs for health systems and patients alike.^{1,2} The minimum direct and indirect costs related to IBS are estimated to range from 6 to 8 billion euros per year in Europe.³ Despite its high prevalence, we are only beginning to understand the multifactorial pathogenesis of IBS, and treatment remains symptom-based and challenging for doctors and patients. Shared decision-making between patients and their doctors is crucial to deliver best-value therapies for IBS in clinical practice. Patients want to take a more active role in the treatment and frequently turn to herbal OTC treatments, which are perceived as natural and non – threatening.⁴

Peppermint as a medicinal plant has long been in use to treat a vast range of abdominal symptoms and has been shown to have antispasmodic as well as anti-infective and pain-relieving abilities. It is widely available as an OTC drug without reimbursement from healthcare and is already used as a therapy for abdominal pain in IBS patients in many countries. Data suggests that peppermint oil acts as a smooth muscle relaxant.⁵ In vitro studies demonstrated that both peppermint oil and its constituent menthol could block calcium channels and that peppermint oil reverses acetylcholine-induced contraction and antagonizes serotonin-induced contraction through calcium channel blockade.⁵ Recent studies suggest that the effect of peppermint oil on reduction in visceral pain is mediated through the transient receptor potential cation channel subfamily M member (TRPM8) and/or the transient receptor potential cation channel, subfamily A, member 1 (TRPA1) receptor located in the gut.⁶

In the last couple of years, evidence from several RCTs has been mounting that small intestinal release peppermint oil has beneficial effects on overall IBS symptoms compared to placebo – while the jury is still out regarding its efficacy in treating one of the key IBS symptoms – pain.^{1,2} In this issue, Weerts et al.⁷ expand results from the PERSUADE trial – showing that small-intestinal release peppermint capsules appear to be cost-effective by cost-effectiveness analyses using incremental costs per quality-adjusted life-years and costs per successfully treated patient. This large RCT demonstrates that it is crucial to consider the low-cost and moderate efficacy of small-intestinal release peppermint oil when choosing a treatment that targets abdominal pain in IBS.

The desperate need for effective and affordable treatment options for IBS makes us hopeful that small intestinal release

peppermint oil will help us manage these challenging patients in the future. It seems not only to be effective and cost-efficient – no, it also hits the mark with a patient population open to herbal medicines. Moreover, peppermint oil is appealing from a patient perspective based on its relatively low cost, minimal risk of adverse effects, and over-the-counter availability. Peppermint oil is a commonly used treatment for IBS, and its therapeutic superiority over placebo in IBS has been demonstrated.⁸

However, available data is still ambiguous regarding pain response in IBS, which in some studies was similar to the used placebo.⁹ In another recent study, peppermint oil and placebo showed clinically meaningful improvement in IBS symptoms – with no significant differences between the groups.¹⁰ Future studies should not only investigate response to pain but also more thoroughly look at the effects of peppermint oil with regards to different IBS – subtypes in order to identify patients groups who could benefit more from treatment. Another interesting question will be how peppermint oil preparations perform in combination with other pharmacological and non-pharmacological IBS therapies.

Furthermore, a chronic condition like IBS usually requires a long-term treatment strategy. In most trials peppermint oil has only been investigated over the course of up to 8 weeks and current guidelines limit its use to 3 months, requiring more research into the long term efficacy of this medication.

In conclusion, there is a new cost-effective mint on block – but we still need to know more about its effect in pain perception and analgesia, treatment duration and its performance as an adjunctive to other IBS therapies in order to give our patients the best possible treatment.

KEYWORDS

constipation, gastroenterology, IBS, Irritable bowel syndrome, motility

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