



Recent meta-analysis on the efficacy of peppermint oil in irritable bowel syndrome

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The meta-analysis demonstrated that peppermint oil is an effective and safe medicinal agent for treating the symptoms of irritable bowel syndrome. In seven clinical studies, peppermint oil was clearly superior to placebo in terms of the improvement in general symptoms of irritable bowel syndrome. In relation to side effects, no statistically significant difference was detectable between peppermint oil and placebo.

Patients with irritable bowel syndrome often suffer from fluctuating symptoms such as abdominal pain, diarrhoea, constipation or bloating. Such symptoms can sometimes have an enormous impact on the quality of life of those affected. A herbal preparation for irritable bowel syndrome is now available in the form of peppermint oil. A recent meta-analysis has summarised the clinical data on peppermint oil [1]. The

data confirm the efficacy of peppermint oil in irritable bowel syndrome and contribute to evidence-based self-medication.

Irritable bowel syndrome is a chronic functional disorder of the intestine characterised by frequently recurring abdominal pain and bloating. Symptoms such as diarrhoea and/or constipation also occur. This impairs the quality of life of those

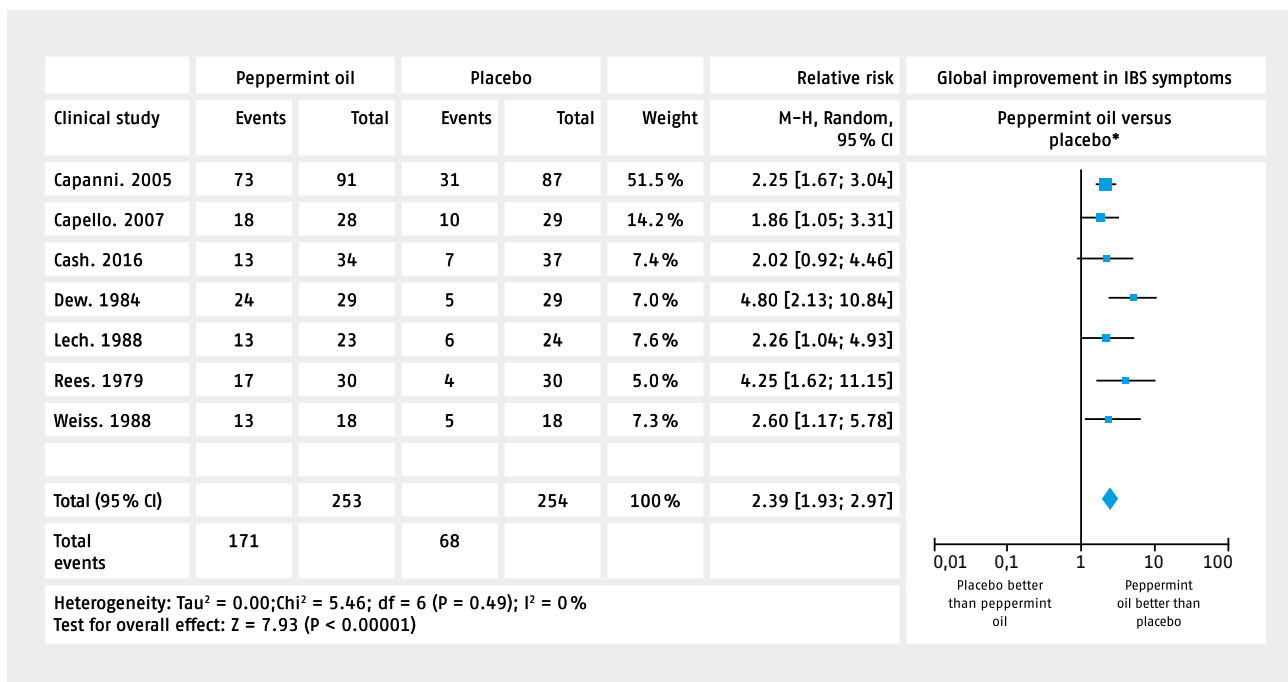


Fig. 1: Global improvement of symptoms of irritable bowel syndrome by peppermint oil compared with placebo.

Forest plot of a meta-analysis of seven randomised placebo-controlled clinical studies with enteric-coated peppermint oil capsules compared with placebo. In terms of the global improvement of irritable bowel syndrome symptoms¹, peppermint oil was significantly more effective than placebo. *Modified from [1]

¹As per EN original

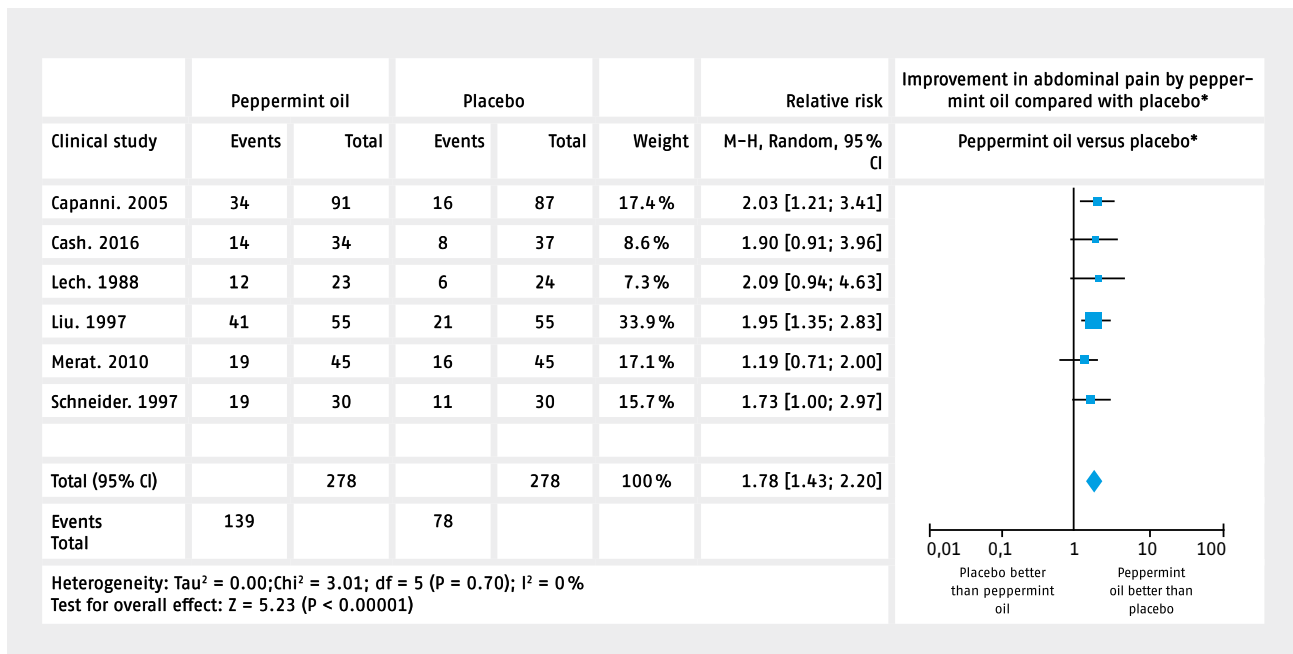


Fig. 2: Improvement of abdominal pain by peppermint oil compared with placebo. Forest plot of a meta-analysis of six randomised placebo-controlled clinical studies with enteric-coated peppermint oil capsules compared with placebo. Peppermint oil was significantly more effective than placebo in terms of abdominal pain. *Modified from [1]

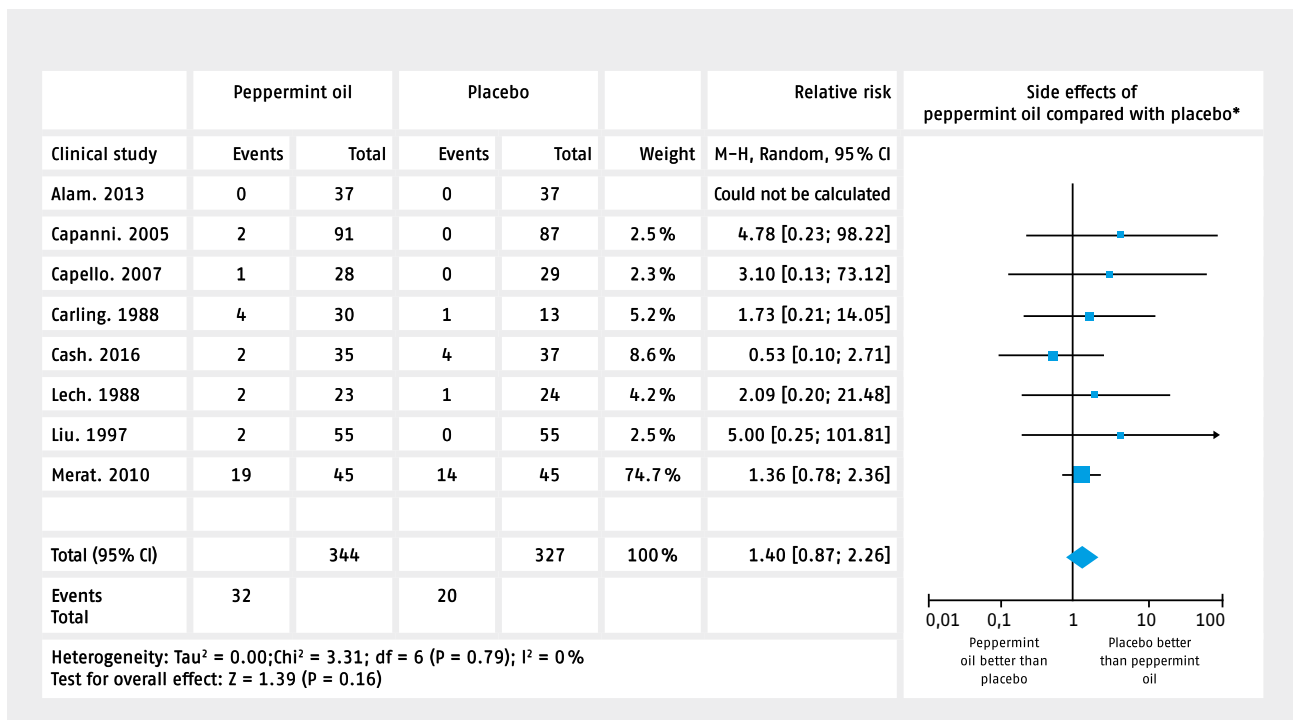


Fig. 3: Side effects of peppermint oil compared with placebo. Forest plot of a meta-analysis of eight randomised placebo-controlled clinical studies with enteric-coated peppermint oil capsules compared with placebo. No significant difference could be demonstrated between peppermint oil and placebo in terms of side effects. *Modified from [1]

affected, leads to frequent visits to the doctor and illness-related absence from work. It is estimated that between 5 and 15% of the population of the Western world are affected by irritable bowel syndrome [2]. The disease is more common in women than in men [3].

Now a herbal preparation for irritable bowel syndrome is available in the form of peppermint oil. The monoterpene constituents can have a positive effect on the pathophysiology of irritable bowel syndrome. L-menthol blocks calcium channels in smooth muscle and thus produces antispasmodic/spasmodic effects in the gastrointestinal tract. Peppermint

oil also has antimicrobial, antioxidant, immunomodulating and local anaesthetic properties that could also be relevant for treating irritable bowel syndrome.

Recent meta-analysis confirms efficacy and safety

The available clinical data on peppermint oil in irritable bowel syndrome have now been pooled and evaluated in a recent meta-analysis, the aim of which was to confirm the efficacy of peppermint oil compared with placebo in patients with irritable bowel syndrome and to record possible side effects.

All randomised, placebo-controlled studies with enteric-coated peppermint oil capsules and a treatment period of at least two weeks were included. Patients had to be suffering from an irritable bowel syndrome that had been diagnosed using recognised criteria, and organic diseases had to have been excluded.

Ultimately, 12 randomised clinical studies with a total of 835 patients were evaluated. In seven clinical studies, peppermint oil was clearly superior to placebo in terms of the global improvement in irritable bowel syndrome (IBS) symptoms (risk ratio: 2.39 – see **Fig. 1**). In six clinical studies, peppermint oil was also more effective than placebo for abdominal pain (risk ratio: 1.78 – see **Fig. 2**). In terms of side effects, there was no significant difference between peppermint oil and placebo – as shown by the data from eight clinical studies (**Fig. 3**).

Significance for pharmacy practice

The most comprehensive meta-analysis yet published on the efficacy of peppermint oil in irritable bowel syndrome showed that peppermint oil is an effective and safe medicinal product

for the treatment of irritable bowel symptoms. This applies to the symptoms globally, as well as the relief of abdominal pain. The side effect rates ranged around the placebo level. Hence peppermint oil can be recommended in pharmacy practice as an evidence-based self-medication for irritable bowel syndrome. This is also reflected in the German S3 Guideline on irritable bowel syndrome [4].

Literature

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