

## Uji acak tersamar ganda tentang manfaat lactobacillus reuteri pada pasien konstipasi fungsional kronik = Randomized controlled trial benefit of lactobacillus reuteri in patients with chronic functional constipation

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Abstrak

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Latar belakang: Konstipasi fungsional kronik adalah masalah yang sering ditemukan di masyarakat dengan prevalensi sekitar 15-25%. Konstipasi menimbulkan berbagai gejala, meningkatkan angka kesakitan dan biaya kesehatan. Saat ini, penggunaan probiotik untuk pengobatan konstipasi kronik pada dewasa telah diteliti, namun, dari berbagai penelitian yang telah dilakukan hasil yang diperoleh masih terbatas dan menimbulkan kontroversi.

Tujuan: Untuk menilai manfaat Lactobacillus reuteri dalam memperbaiki skor konstipasi Agachan, jumlah L. reuteri feses dan pH feses pada pasien konstipasi fungsional kronik.

Metode: Uji acak tersamar ganda dilakukan pada 40 pasien dewasa (12 laki-laki/28 perempuan), rerata usia 45,95±16 tahun, yang menderita konstipasi fungsional kronik sesuai kriteria Rome III, selanjutnya dilakukan randomisasi dan diberikan L.reuteri atau Plasebo selama 4 minggu.

Hasil: Pada minggu ke-4, setelah pemberian L.reuteri terjadi perbaikan gejala konstipasi, yang dinilai dari penurunan skor konstipasi Agachan dari 17 menjadi 8 dengan  $p < 0.001$ . Terjadi peningkatan jumlah L.reuteri feses dari  $6,80 \times 10^8$  menjadi  $2,12 \times 10^8$  dengan  $p < 0,001$  dan penurunan pH feses dari 5,44 (SB 0,70) menjadi 4,78 (SB 0,56) dengan  $p < 0,001$  pada kelompok L.reuteri, sedangkan pada kelompok Plasebo tidak didapatkan hasil yang bermakna pada perbaikan skor konstipasi Agachan, jumlah L.reuteri feses dan pH feses.

Kesimpulan: L.reuteri lebih efektif dibandingkan Plasebo dalam memperbaiki konstipasi, meningkatkan jumlah L.reuteri feses dan menurunkan pH feses pada pasien konstipasi fungsional kronik dewasa.

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Background: Chronic functional constipation is a common problem that affects between 15-25% of the population and cause symptoms and disorders, that creates discomfort, morbidity and high costs for health care. Recently, the consumption of probiotics in treating chronic constipation in adults have been investigated.

However, there are still limited and controversial evidences available from controlled trials.

Aim: To evaluate the effects of L. reuteri in improving the Agachan constipation

score, the number of *L. reuteri* in the feces and the fecal pH in the patients with chronic functional constipation.

**Methods:** A double-blind, placebo RCT was conducted in 40 adult (12 male/ 28 female with mean age 45,95±16 years) affected by chronic functional constipation according to Rome III criteria. Patients were randomly assigned to receive a supplementation of *L.reuteri* or Placebo for 4 weeks.

**Results:** At week 4, the decrease in Agachan constipation score was from 17.00 to 8.00 with  $p < 0.001$ , the increase number of *L.reuteri* was from  $6,80 \times 10^8$  with  $p < 0,001$  and the decrease of pH feces was from 5,44 (SB 0,70) to 4,78 (SB 0,56) with  $p < 0,001$  in the *L. reuteri* group, otherwise in the Placebo group there were no significant results in Agachan constipation score, the number of *L.reuteri* and fecal pH assessed.

**Conclusion:** *L.reuteri* is more effective than the Placebo group in improving the Agachan constipation score, increasing the number of *L. reuteri* in the feces and decreasing the fecal pH in adult with chronic functional constipation.;**Background:** Chronic functional constipation is a common problem that affects between 15-25% of the population and cause symptoms and disorders, that creates discomfort, morbidity and high costs for health care. Recently, the consumption of probiotics in treating chronic constipation in adults have been investigated. However, there are still limited and controversial evidences available from controlled trials.

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