LACTOBACILLUS ACIDOPHILUS
Probiótico de vanguarda com resultados atualizados
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DESCRIÇÃO

O *Lactobacillus acidophilus* é um probiótico considerado como um microorganismo do tipo bastonete gram-positivo, não formador de esporo, homofermentativo de catalase negativa, habitante comum do trato intestinal humano.

MECANISMO DE AÇÃO

Existe evidências de que inibem a proliferação de microrganismos patogênicos que competem por nutrientes ou produzem compostos que aumentam a acidez no intestino, desfavorecendo o seu crescimento. Assim, aumenta o número de microrganismos saudáveis, como os lactobacilos vaginais que restauram a flora microbiota vaginal. De forma geral, inibem o crescimento micro-organismos patogênicos, evitando vulvovaginites.

INDICAÇÕES

- Tratamento de vulvovaginites bacterianas, fúngicas e por *Trichomonas*;
- Síndrome do intestino irritável;
- Diarreia infecciosa, colites ulcerativas, colostomias com diarreia e constipação;
- Restabelecimento da flora intestinal devido ao uso de antibióticos.

DOSE USUAL

Recomendação oral média de 10 bilhões de UFC de *Lactobacillus acidophilus* ao dia.

SUGESTÕES DE FÓRMULAS

- **Lactobacillus acidophilus** ........... 10 bilhões de UFC
  
  **Modo de uso:** dissolver 1 dose em 1 litro de água, para lavagens vaginais, 4 vezes ao dia, durante 5 a 7 dias.
  
  **Indicação:** acidificante vaginal.

- **Lactobacillus acidophilus** ........... 1 x 10^9 UFC
  
  **Modo de uso:** 1 dose ao dia.
  
  **Indicação:** efeito protetor na diarreia associada ao uso de antibióticos.

PRINCIPAIS REFERÊNCIAS


Lactobacillus acidophilus, Strain NAS (H₂ O₂ Positive), in Reduction of Recurrent Candidal Vulvovaginitis

The incidence of recurrent vulvovaginal candidiasis was compared among female university students using Lactobacillus acidophilus, NAS strain (H₂ O₂ positive), vaginally (group 1), L acidophilus, NAS strain (H₂ O₂ positive), vaginally in combination with oral probiotic capsules (group 2), and placebo controls. The selected students had recent vaginitis and a total of 4 or more vulvovaginal infections in the past 12 months. Out of 27 women participating for an average 3.3 months in a randomized, double-blind, placebo-controlled trial, 9 women were in group 1, 8 women were in group 2, and the remaining 10 women were in the control group. The total number of infections in group 1 differed from the control group (P = 0.005), as did the number of infections in group 2 (P = 0.011). The incidence of infection between the two treatment groups did not differ (P = 0.81). These important findings demonstrate that vaginal inserts of L acidophilus, NAS strain (H₂ O₂ positive), with or without oral probiotic capsules, may significantly reduce the incidence of candidal vulvovaginitis in women with recurrent infections.

The effect of a multispecies probiotic mixture on the symptoms and fecal microbiota in diarrhea-dominant irritable bowel syndrome: a randomized, double-blind, placebo-controlled trial

BACKGROUND: The clinical effect of probiotics on irritable bowel syndrome (IBS) is still controversial. AIMS: We aimed to evaluate the effects of a probiotic mixture on IBS symptoms and the composition of fecal microbiota in patients with diarrhea-dominant IBS (D-IBS). METHODS: Fifty patients with D-IBS were randomized into placebo or probiotic mixture (Lactobacillus acidophilus, Lactobacillus plantarum, Lactobacillus rhamnosus, Bifidobacterium breve, Bifidobacterium lactis, Bifidobacterium longum, and Streptococcus thermophilus 1.0×10 CFU) groups. Treatment was taken daily for 8 weeks. The primary outcome was adequate relief (AR) of overall IBS symptoms, which was assessed weekly for 10 weeks. A responder was defined as a patient who experienced AR for at least half of the 10-week study period. Secondary outcomes included the effects on individual symptoms, stool parameters, and IBS quality of life. The fecal flora compositions were analyzed by polymerase chain reaction denaturing gradient gel electrophoresis (DGGE). RESULTS: The proportion of AR was consistently higher in the probiotics group than in the placebo group throughout the 10-week period (P<0.05). The proportion of responders was significantly higher in the probiotics group than in the placebo group (48% vs. 12%, P=0.01). Stool consistency improved significantly in the probiotics group compared with the placebo group. Percent changes in individual symptom scores were similar in the 2 groups, but IBS quality of life improvement tended to be higher in the probiotics group. Comparison of denaturing gradient gel electrophoresis profiles of fecal flora showed that the concordance rate between bacterial compositions before and after treatment was significantly higher in the probiotics group than in the placebo group (69.5% vs. 56.5%, P=0.005). CONCLUSIONS: The probiotic mixture was effective in providing AR of overall IBS symptoms and improvement of stool consistency in D-IBS patients, although it had no significant effect on individual symptoms. The therapeutic effect of probiotics is associated with the stabilization of intestinal microbiota.

Lactobacillus acidophilus and Bifidobacterium bifidum stored at ambient temperature are effective in the treatment of acute diarrhea

INTRODUCTION: Probiotics have demonstrated potential to reduce duration of diarrhoea and frequency of watery stools. Probiotics such as Lactobacillus acidophilus and Bifidobacterium bifidum (Infloran®) are usually maintained at a storage temperature of 4°C which is generally not feasible in tropical or sub-tropical countries. AIM: The efficacy of Infloran® for treatment of acute diarrhoea when stored at 28-32°C (room temperature) was evaluated. METHODS: This was a double-blind, randomised study of infants and children aged 2 months to 7 years with acute diarrhoea. Patients were randomly assigned to receive Infloran® stored at 4°C, at room temperature, or to a placebo group. Duration of diarrhoea was a primary outcome, while the number of stools, hospital stay and requirement for rehydration fluid were secondary outcomes. RESULTS: Probiotics shortened duration of diarrhoea (34.1 and 34.8 hrs when stored either at 4°C or at room temperature, respectively, and 58 hrs with placebo, p<0.01) and reduced the number of stools (7.3 and 8 vs 15.9 with placebo, p<0.01). CONCLUSION: Administration of probiotics is beneficial as additional treatment of acute diarrhoea and efficacy is not affected by storage temperature.
The inhibitory effect of bacteriocin produced by *Lactobacillus acidophilus* ATCC 4356 and *Lactobacillus plantarum* ATCC 8014 on planktonic cells and biofilms of *Serratia marcescens*

**BACKGROUND/AIM:** The spread of antibiotic-resistant pathogens has resulted in the need for new treatments. The aim of the present study is to investigate the effect of bacteriocin from *Lactobacillus acidophilus* ATCC 4356 and *Lactobacillus plantarum* ATCC 8014 on planktonic and biofilm forms of *Serratia marcescens* strains. **MATERIALS AND METHODS:** The direct antagonism of the *L. plantarum* and *L. acidophilus* cell-free supernatant on *S. marcescens* cultures was determined using an optical density assay. The bacteriocin was partial purified by ammonium sulfate precipitation. Its molecular weight was analyzed with sodium dodecyl sulfate-polyacrylamide gel electrophoresis (SDS-PAGE). The effect of bacteriocins on the biofilm of *S. marcescens* strains was then determined with 2,3,5-triphenyl tetrazolium chloride. **RESULTS:** The purified bacteriocin from *L. plantarum* ATCC 8014 and partially purified bacteriocin from *L. acidophilus* ATCC 4356 displayed noticeable inhibitory activity against planktonic and biofilm forms of *S. marcescens* strains. SDS-PAGE analysis revealed that the apparent molecular weight of bacteriocin from *L. planetarium* was 63 kDa, and that of bacteriocin from *L. acidophilus* was 68 or 48 kDa. **CONCLUSION:** The bacteriocins could be effective compounds to control surface-attached pathogenic bacteria and can be used as therapeutic agents after acceptable in vivo experimentation.