Evaluation and Comparison of the Effectiveness and Safety of Fecal Microbiota Transplantation, Anti-Inflammatory Drugs, and Biologics for the Treatment of Inflammatory Bowel Disease

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Fecal microbiota transplantation (FMT) is a new approach used for the treatment of inflammatory bowel disease (IBD) since this condition has been linked to an alteration of the gut microbiota. However, for many years specialists have been prescribing anti-inflammatory drugs and biologics. This study aims to evaluate the effectiveness and safety of some treatments and to carry out a comparison among the FMT and the treatments that modulate the immune system. Here, we analyzed 60 interventional and observational studies, extracted from PubMed, from patients that received FMT, anti-inflammatory drugs (aminosalicylates, corticosteroids), or biological drugs (Adalimumab, Golimumab, Infliximab, Natalizumab, and Vedolizumab) to treat IBD. Then, different statistical analyses were used to compare the remission rates, and a qualitative analysis of the adverse effects (AE) was performed on each treatment. This study adhered to the PRISMA guidelines. Our results show that FMT remission rates ranged between 50-80% initially, and 70% after two years, exerting better rates than other drugs such as aminosalicylates, Golimumab, or Infliximab. Regarding treatment safety, FMT patients suffered milder and shorter adverse effects than patients receiving corticosteroids, which resulted in a treatment withdrawal. Our study indicates that FMT shows promising results to achieve clinical remission of IBD in the short and long term. Its safety profile reports that AE are enormously low and do not provoke discontinuation since they disappear within 24h. Altogether, these results point out the effectiveness and safety of FMT, although further studies are required to guarantee a first-line treatment for this disease.

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