ALEMAN in treatment of constipation in Parkinson's Disease

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Aim

Gastrointestinal(GI) dysfunction cause important non motor symptom in PD. Extra nigral structures as enteric nervous system are affected due to alpha synucleine aggregates from the early stages of the disease. In addition, dopaminergic drugs can also cause or exacerbate some GI symptoms. The prevalence of constipation in PD ranges from 20 to 80% and can precede motor symptoms by many years. The aim of this study is to assess the effects of probiotic osmotic fructooligosaccharides (FOS) in association with D-mannitol on constipation in PD

Materials and Methods

Our clinical observation of 6 week, included 20 patients, 8 females and 12 males, with diagnosis of constipation in PD (Rome II criteria), and all taking regularly or occasionally oral or rectal laxatives. After baseline evaluation, patients stopped their abitual laxative and started to take FOS 1 g plus D-mannitol 5 g in powder dissolved in 200 ml of warm liquid, at breakfast time. The dose could be modified (one to three sachets daily), in according to the stool frequency. As rescue therapy they could only use rectal laxatives. The patients was also asked to complete, at baseline and after 6 week, a questionnaire in four items: (1)presence of excessive strain during defecation, (2)sensation of incomplete evacuation, (3)tenesmus, (4)hard stools. Each item was scored with the presence or not of the symptom (0 = absent, 1 = present) and respect also severity (1=mild, 2=moderate, 3=severe). The overall score was calculated by multiple presence and severity scores. Patient was considered responder in improved stool frequency expressed in number of evacuations per week, decreased questionnary score and number of used rectal laxative.

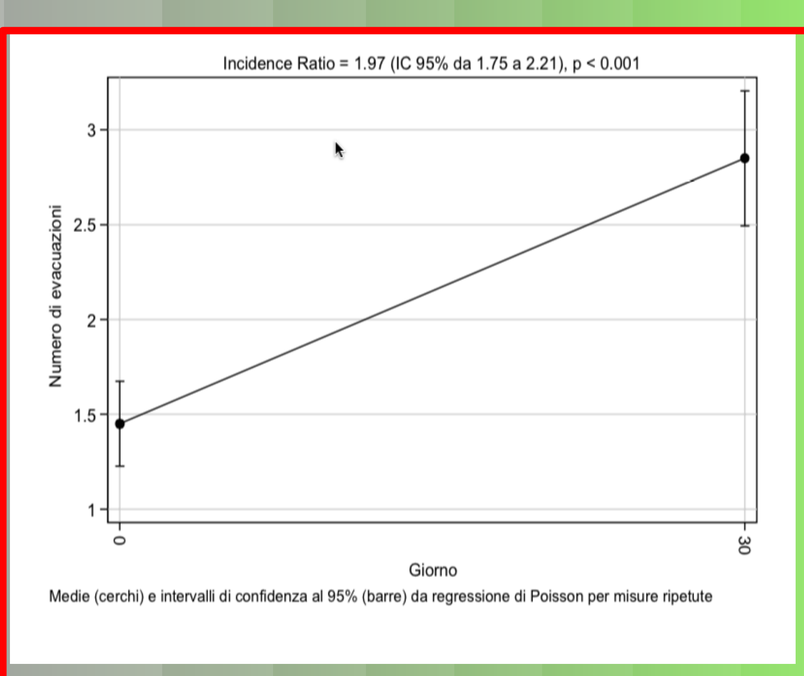

Fig. A) Number of evacuations

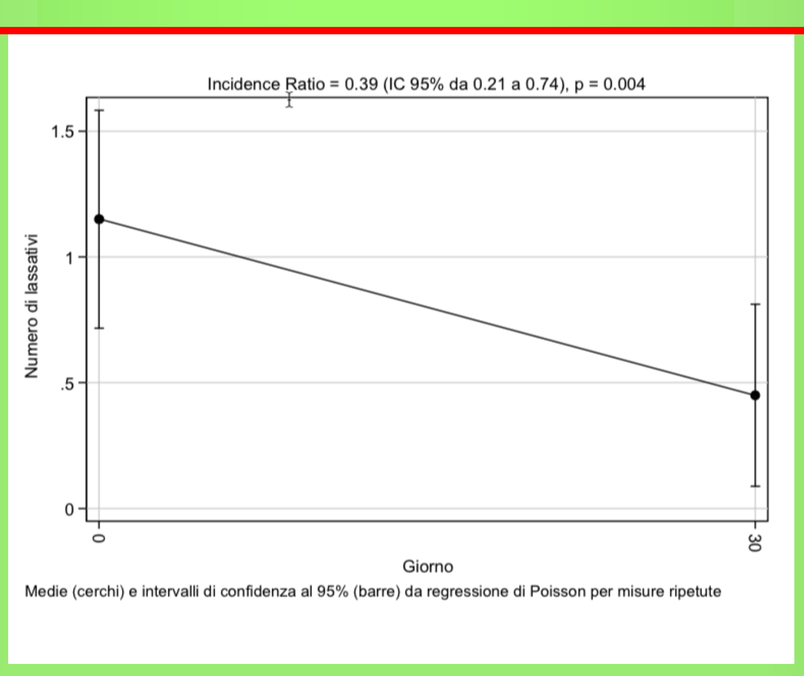

Fig. B) Use of laxatives

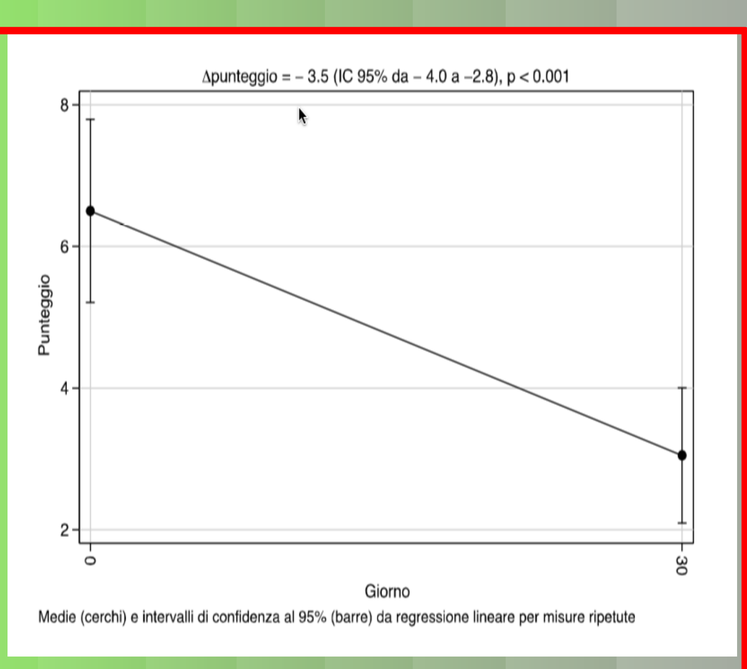

Fig. C) Questionanaire's score

Results

Daily stool frequency increased from 1.5 (IC95% 1.2-1.7) a 2.9 (IC95% 2.5-3.2) [p < 0.001,] *(Fig.A)*. The number of daily rectal laxative use is decreased from 1.1 (IC95% 0.7-1.6) to 0.5 (IC95% 0.1- 0.8)[p=0.004] *(Fig.B)*. The questionnary score is decreased from 6.5 (IC95% 5.2-7.8) to 3.0 (IC95% 2.1- 4.0, p < 0.001) *(Fig. C)*

Discussion and Conclusion

Constipation in PD causes significant impairment in quality of life, including peripheral absorption failure of farmacological therapy. Treatment is difficult due to multifactorial mechanism underlying: slow colonic transit, anorectal disfunction and small intestinal bacterial overgrowth. Options are different and non pharmacological treatment include soluble fiber, macrogol or probiotics supplement. This study showed how FOS with D-mannitol (Aleman) can significantly improve stool frequency and bowel symptoms related to constipation in PD.

References

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