Disbiosi intestinale e Parkinson

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Parkinson's Disease

60% dei pazienti soffre di stipsi ostinata

La stipsi può precedere anche di molti anni l'esordio della malattia

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Nutritional risk and gastrointestinal dysautonomia symptoms in Parkinson's disease outpatients hospitalised on a scheduled basis

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Rome III criteria (constipation module) were used for the assessment of the presence of chronic constipation. According to these criteria, patients are considered to have functional constipation if they score ≥ 2 points answering the questionnaire[23].

Rome Foundation, Inc. (2012) Rome III Disorders and Criteria. http://www.romecriteria.org

Trattamento nutrizionale
(fibra, idratazione)

Trattamento farmacologico
cronico (Macrogol)

Use of probiotics for the treatment of constipation in Parkinson's disease patients

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Aim. **The aim of this paper was to assess the effects of milk fermented with the probiotic strain *Lactobacillus casei* Shirota on constipation in Parkinson's disease patients. Constipation is a common secondary symptom in patients suffering from Parkinson's Disease (PD), generally treated with dietary therapy, soluble fiber supplements and macrogol laxatives without sodium sulfate. There are no studies on the use of probiotics in the treatment of constipation in these patients. The effects of the administration of *Lactobacillus casei* Shirota on gastrointestinal symptoms have been assessed in two randomized controlled trials on patients suffering from chronic constipation.**

Methods. **Forty PD patients suffering from constipation according to Rome III criteria were recruited. We compared the characteristic of intestinal function during two periods with different treatments: in the first week the patients treated constipation only with dietetic therapy; in the following 5 weeks the patients treated constipation not only with dietetic therapy, but also taking a 65 mL fermented milk drink containing 6.5×10^9 CFU of *Lactobacilus casei* Shirota daily. They completed a daily diary for 6 weeks, recording details related to their intestinal function.**

Results. **After probiotic intake we observed a statistically significant increase in the number of days per week in which stools were of normal consistency ($P<0.01$) and significant reductions in the number of days per week in which patients felt bloated ($P<0.01$), experienced abdominal pain ($P<0.01$) and sensation of incomplete emptying ($P<0.01$).**

Conclusions. **This pilot study showed that a regular intake of probiotics can significantly improve stool consistency and bowel habits in Parkinson's disease patients.**

Key words: **Probiotics - Constipation - Parkinson disease.**

Parkinson's disease (PD) is a progressive neurological condition that is due to the loss of dopamine production in brain and

Increased Intestinal Permeability Correlates with Sigmoid Mucosa alpha-Synuclein Staining and Endotoxin Exposure Markers in Early Parkinson's Disease

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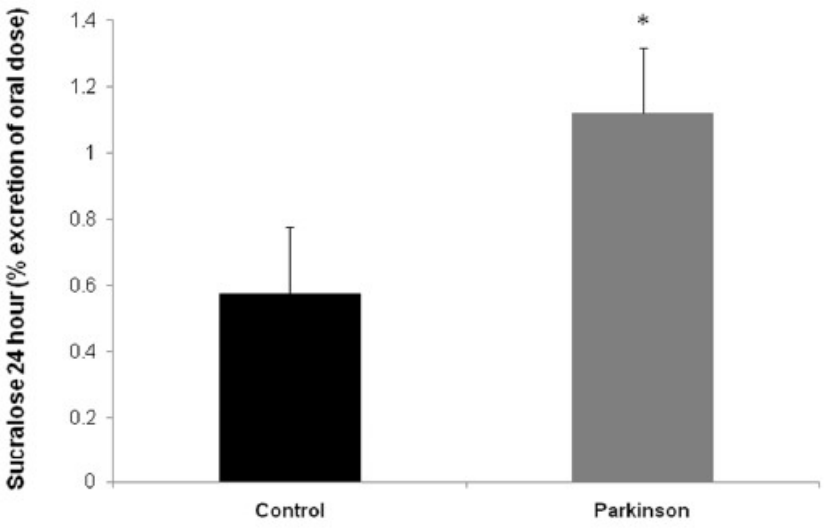

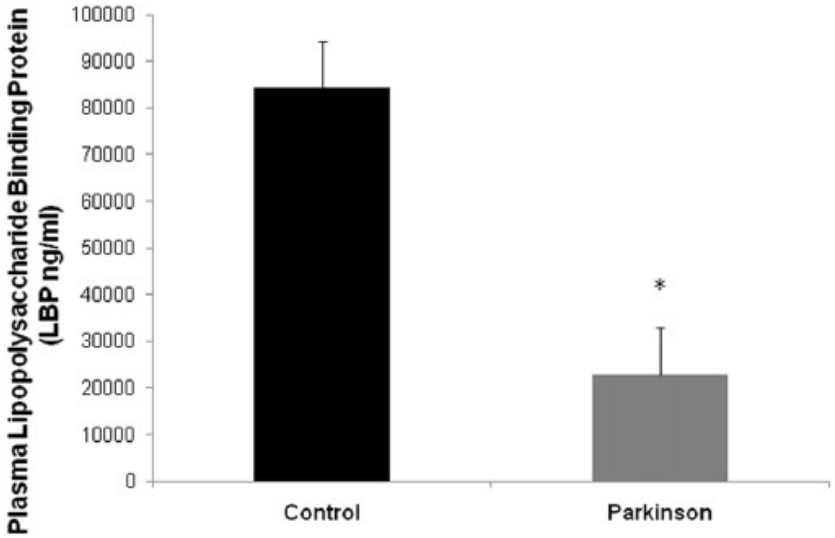

9 pazienti De Novo (disease duration < 2 anni, nessuna terapia)

Prevalence of Small Intestinal Bacterial Overgrowth in Parkinson's Disease

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ABSTRACT

Background: Parkinson's disease (PD) is associated with gastrointestinal motility abnormalities that could favor the occurrence of small intestinal bacterial overgrowth. The aim of the study was to assess the prevalence of small intestinal bacterial overgrowth in PD patients.

Methods: Consecutive PD patients were enrolled. The controls were subjects without PD. All patients and controls underwent the glucose breath test to assess small intestinal bacterial overgrowth.

Results: Forty-eight PD patients and 36 controls were enrolled. The prevalence of small intestinal bacterial overgrowth was significantly higher in PD patients than in controls (54.17% vs 8.33%; $P < .0001$; OR, 2.24; 95% CI, 3.50–48.24). Multivariate analysis showed Hoehn and Yahr stage (OR, 3.07; 95% CI, 1.14–8.27) and Unified PD Rating score (OR, 1.12; 95% CI, 1.02–1.23) were significantly associated with small intestinal bacterial overgrowth in PD patients.

Conclusions: Small intestinal bacterial overgrowth is highly prevalent in PD. Gastrointestinal motility abnormalities might explain this association.

Increased urinary indoxyl sulfate (indican): New insights into gut dysbiosis in Parkinson's disease

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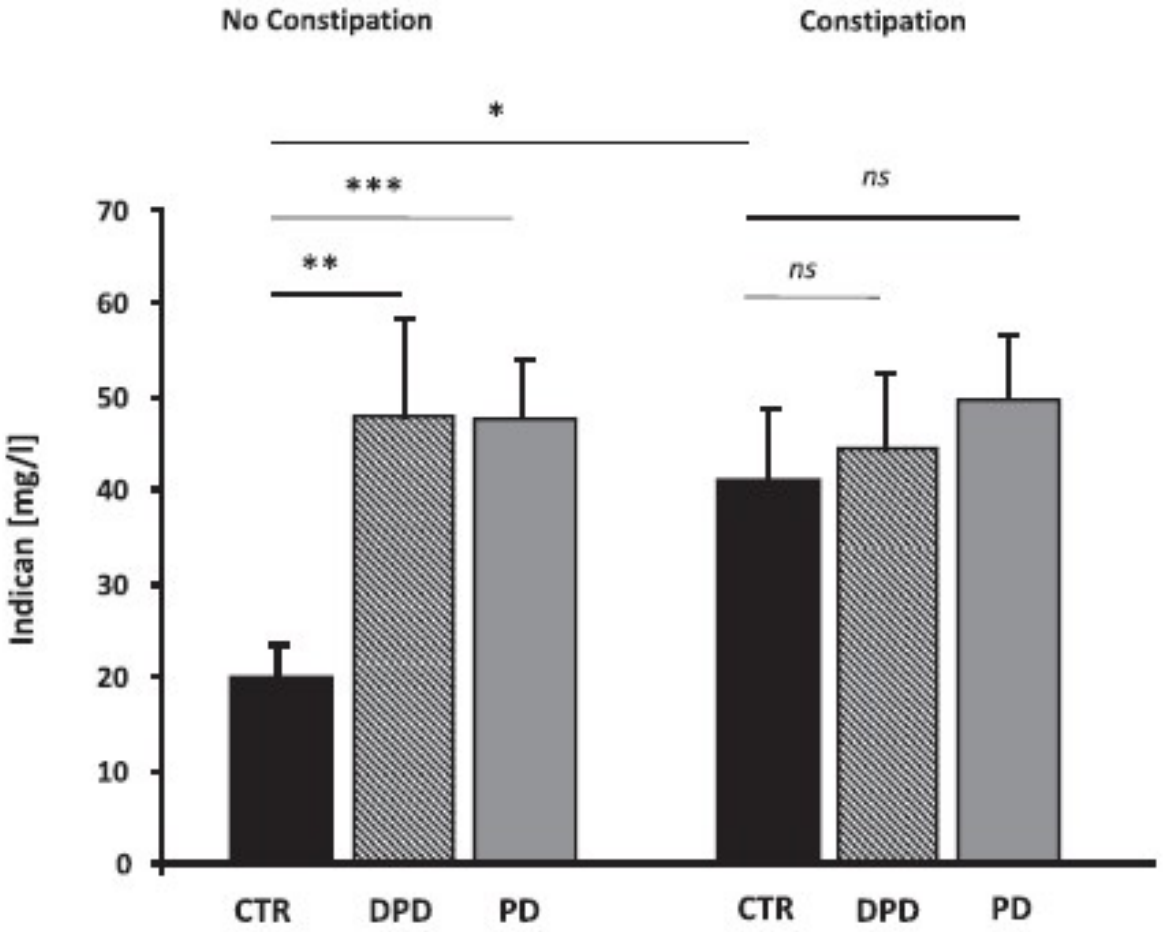
Levodopa-treated patients (PD; N=68)

PD patients on no drug treatment (De Novo, DPD; N=34)

Age and gender-matched healthy control group (CTR; N=50).



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RESEARCH ARTICLE

Gut Microbiota Are Related to Parkinson's Disease and Clinical Phenotype

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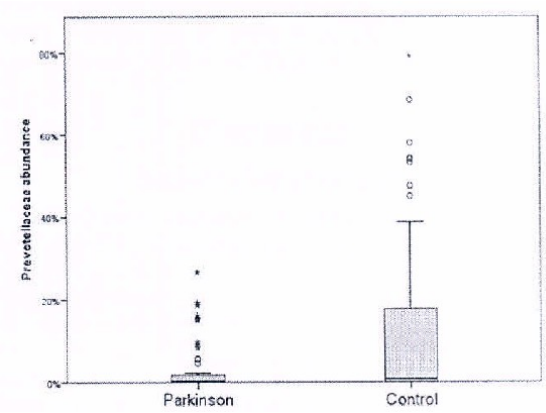
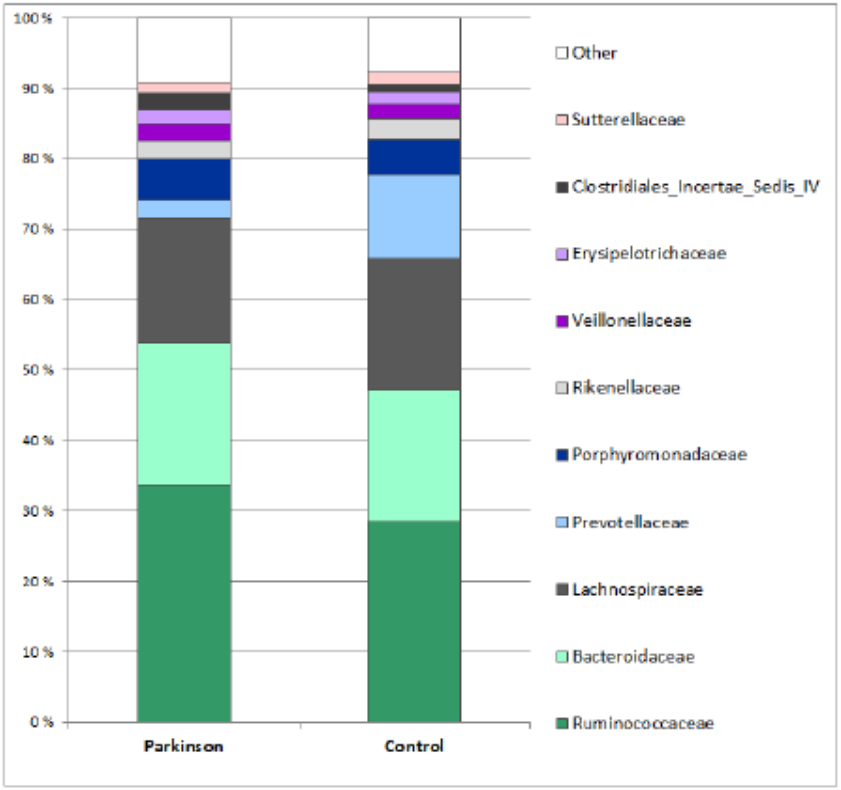
- ✓ Reduction in *Prevotellaceae*
- ✓ Increase in *Enterobacteriaceae*





72 pazienti e 72 controlli
PD in trattamento. No dati nutrizionali.

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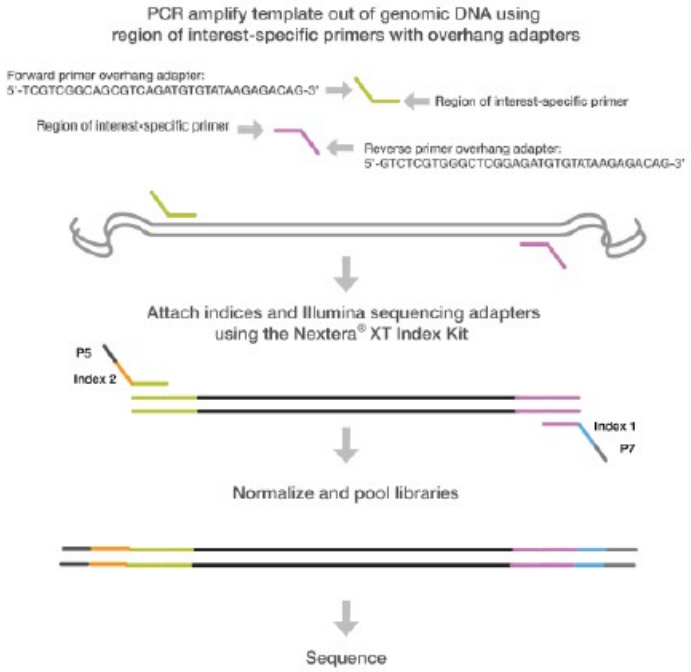
Scopo del nostro protocollo
Studio del microbioma fecale

100 pazienti con malattia di Parkinson de novo + 100 controlli (coniugi conviventi)

70 coppie di gemelli monozigoti (discordanti per la diagnosi di PD)

Valutazioni:MMSE, UPDRS, H&Y,NMS, Criteri Roma III, FFQ, diario alimentare 7 gg, misure antropometriche

Sequenziamento delle regioni ipervariabili V3 e V4 del gene 16S rRNA



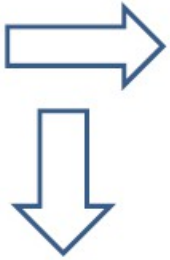
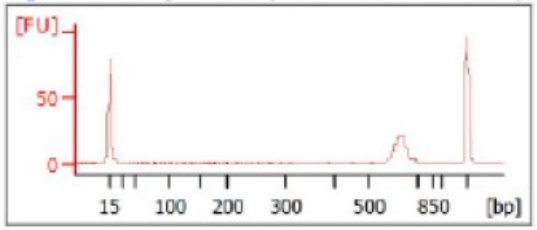


Figure 5 Example Bioanalyzer Trace of Final Library



MiSeq Reagent Kit v3