

## XVI Congresso Nazionale Congiunto delle Malattie Digestive

Verona

Saturday, March 06, 2010 - Tuesday, March 09, 2010

<b>Title</b>	<b>SOLUBLE FIBRES INCREASE BOWEL MOVEMENTS IN NORMAL VOLUNTEERS BUT DO NOT CHANGE ORO-ANAL TRANSIT TIME OR STOOL CONSISTENCY. RESULTS OF A SINGLE-BLIND, CROSSOVER, CONTROLLED STUDY.</b>
<b>Abstract</b>	<b>20</b>
<b>Authors</b>	Dr Campagnola P. * [Policlinico G.B.Rossi ~ Verona] Dr Agugiaro F. [Policlinico G.B.Rossi ~ Verona] Dr Zamboni D. [Policlinico G.B.Rossi ~ Verona] Dr Melegari C. [Barilla Spa ~ Parma] Dr Milleri S. [Policlinico G.B.Rossi ~ Verona] Prof Vantini I. [Policlinico G.B.Rossi ~ Verona] Prof Benini L. [Policlinico G.B.Rossi ~ Verona]
<b>Topics</b>	E. Small bowel diseases - 3. probiotics

Fructo- and galacto-oligosaccharides (FOS and GOS) are poorly digested carbohydrates that, after oral ingestion, reach the colon and behave as soluble fibres. In animals they modify colonic function, but data on bowel movements in normal subjects are sparse. Aim of the present study was to evaluate the effect of these soluble fibres on bowel movements, stool consistency and oro-anal transit time.

Eighty-one normal subjects were screened, 51 were recruited and completed a single-blind crossover study. Subjects, aged  $32.5 \pm 11.7$  years ( $x \pm 1$  SD), had normal bowel habits (3-8 bowel movements/week). Stool frequency and consistency (Bristol scale, possible values 1, hardest, to 7, liquid) were recorded on a diary. Transit time was measured recording on a diary the appearance in stools of alimentary, unabsorbable red or blu colorants. These were eaten at day -7 and -4 (run-in period, 7 days) and at day 3, 6 and 9 during the control (C) or treatment (T) periods (13 days each, with 10 days of wash-out). Fifty grams of control or treatment biscuits with the same appearance and taste (the latter containing 4.1 grams FOS and GOS) were taken every day at breakfast. Analysis of data was performed by the analysis of variance for repeated measurements.

During run-in, number of bowel movements was  $6.3 \pm 1.3$ /week, consistency  $3.4 \pm 0.6$ , oro-anal transit time  $31.8 \pm 13.1$  hours. During treatment, no difference was found in stool consistency (C:  $3.5 \pm 0.7$ ; T:  $3.6 \pm 0.6$ ) or oro-anal transit time (C: 29.4 h; T 28.9 hours). On the contrary, a significant increase in bowel movements was observed during treatment, starting from day 3, and persisting for all the remaining period (p ranging from  $<0.007$  to  $<0.02$ )(figure). A similar increase was found also considering the 21 patients with  $<6$  bowel movements/week during the run-in period.

Soluble fibers (FOS and GOS) increase bowel movements in normal subjects, but have no effect on oro-anal transit time or stool consistency. This effect is already present after 3 days of biscuit intake, and persists for the 2 weeks of the study. The effect of soluble fibres on functional constipation requires further studies.

BISCOTTI CON FIBRE SOLUBILI AUMENTANO NEI VOLONTARI SANI IL NUMERO DELLE SCARICHE, SENZA MODIFICARE TRANSITO ORO-ANALE E CONSISTENZA DELLE FECI. RISULTATI DI UNO STUDIO CROSSOVER, CONTROLLATO, A SINGOLO CIECO.

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Presentation type **Poster**

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Session **P.  
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