CONSTIPATION IN HOSPITALIZED PATIENTS: PREVALENCE AND ASSOCIATED FACTORS.

Hypothesis / aims of study
To identify and to analyze the prevalence of constipation and sociodemographic and clinical variables associated with their occurrence in hospitalized patients.

Study design, materials and methods
This is an observational, cross-sectional, analytical and descriptive epidemiological study, where the study sample consisted of 345 adult and elderly patients hospitalized at a University Hospital. The data were collected through interviews, physical examination and medical records, using the following instruments: Sociodemographic and Clinical Data and The Bowel Function in the Community. The prevalence was obtained in a single day in four consecutive months (point-prevalence), in the same day of each month, in order to meet the calculated sample size for the associated factors’ analysis. The sample size calculation was based on the overall prevalence of 26%, according to a general population rate found by a previous national study (1). A sample size of 290 was required for the present study. This study considered as constipated the patients who met two or more Rome III Criteria (2). Data were analyzed using chi-square and Fisher tests for categorical variables, t-student and Mann-Whitney tests for numerical variables, and logistic regression for the identification of associated factors. P<0.05 was used for statistical significance, except for regression analysis variables insertion (p<0.1); 95% Confidence Interval was also analyzed.

Results
The sample was characterized by women (194 / 56.3%) and Caucasians (165 / 47.8%); mean age of 48.9 years (SD = 21.2); low level of education (mean of 8.3 /; SD=4.5 years of study) and 106 (30.7%) retired; 151 (43.8%) had two or more comorbidities; Arterial hypertension (134 / 38.8%) and Diabetes mellitus (80 / 23.2%) were the most common; 76 (22%) had insomnia and 50 (14.5%) were bedridden.

The constipation prevalence was 14.9% (51/ 345), 15% (29/345) for women and 14.7% (22/ 345) for men. Among the constipated patients, 19 (37.3%) reported that the problem had started during hospitalization.

There were statistically significant differences between the groups with and without constipation for the following variables: study years (p=0.028), diarrhea (p<0.001) and pelvic or abdominal radiotherapy (p<0.001). For women, there was no statistically significant difference between the groups with and without constipation for any variable, while for men, the only variable that emerged with a statistically significant difference between the groups with and without constipation was sexual impotence (p<0.001).

In the regression model, the variables that appeared associated with constipation were: years of study and use of laxatives (Table 1).

Table 1. Variables associated with the presence of intestinal constipation.

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% CI for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>Years of Study</td>
<td>-0.085</td>
<td>0.036</td>
<td>5.683</td>
<td>1</td>
<td>0.017</td>
<td>0.918</td>
<td>0.856</td>
</tr>
<tr>
<td>Laxative use</td>
<td>2.090</td>
<td>0.444</td>
<td>22.175</td>
<td>1</td>
<td>0.000</td>
<td>8.081</td>
<td>3.387</td>
</tr>
</tbody>
</table>

Interpretation of results
The prevalence of constipation among hospitalized patients has been considerably lower than the results obtained by other recent international study (38%) performed with elderly patients (3).

According to the logistic regression model (Table 1), each year of study decreases the odds of constipation by 8.2%. Chronic use of laxatives increased the chance of constipation eight-fold.

Concluding message
The prevalence and associated factors obtained in the present study contributes to the scarce National and International literature related to hospitalized adults and elderly people. Longitudinal studies are necessary to confirm the relationships found between the studied variables, contributing to a more accurate diagnosis of the causality of these conditions and, therefore, the establishment of more effective measures on prevention and treatment of constipation in the hospital setting.

References

Disclosures
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