MANOMETRY FINDINGS IN PATIENTS WITH FUNCTIONAL CONSTIPATION

Dr. Bhavin Khimjibhai Davra, Dr. Usha Srinivas
Apollo Hospital, Chennai

BACKGROUND AND AIM

• Chronic constipation (CC) is a common medical problem in the community worldwide including India.
• With evolving understanding of the pathophysiology of the disease and more insights into functional GI disorders, newer guidelines are developed with the latest being ROME IV consensus.
• A large number of patients with functional constipation (FC) have functional defecation Disorders (FDD) which requires special diagnosis and treatment which is different from conventional drug-based treatment for constipation.
• Data on the prevalence of FDD is scarce and studies of predictability of FDD based on symptoms have shown variable results.
• AIM: To study the manometry findings and its association with clinical symptoms in patients with functional constipation and prevalence of Functional defecation disorder among them.

MATERIALS AND METHOD

• Study design: Prospective observational study
• Place and Duration of Study: Patients visiting the department of Gastroenterology, Apollo Main Hospital Chennai between March 2020 to October 2021.
• Methodology: Consecutive patients with FC (Defined as per ROME VI criteria) between age 18-70 years presenting to our institute and undergoing anorectal manometry (ARM) and balloon expulsion test (BET) were enrolled.
• Clinical history regarding the symptoms, duration of constipation and stool form and endoscopy findings were recorded.
• Patients with mechanical obstruction or severe cardiopulmonary co-morbidities were excluded.
• The procedure was done in the left lateral position with hips flexed, using a 16-channel water perfusion manometric assembly the side holes for channels 1-13 spaced at 0.5 cm apart and the last three placed 1 cm apart. Data were recorded at 25 Hz and analyzed using specialized software (Trace Version 1.3v, Hebbard, Australia).
• BET was recorded after distending a rectal balloon with 50 ml of air and asking the patient to expel the balloon in the left lateral position in a stipulated time period of 1 minute.
• Patients with abnormal ARM and absent BET were diagnosed as FDD and were classified into dyssynergic defecation (DD) I-IV according to Rao’s classification.
• Data entry was done in MS excel spread sheet and Data analysis was carried out by SPSS version 25.0.

RESULTS AND DISCUSSION

• 75 patients were enrolled.
• Male: Female = 39:36.
• Mean age = 44.59±13.89 years
• Mean duration of constipation = 3.32±2.87 years.

Symptoms and manometry findings

<table>
<thead>
<tr>
<th>Normal Manometry</th>
<th>Functional defecation disorder (FDD)</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DD 1</td>
<td>DD 2</td>
</tr>
<tr>
<td>Incomplete evacuation (67%)</td>
<td>20 (40%)</td>
<td>5 (10%)</td>
</tr>
<tr>
<td>Blockage (52%)</td>
<td>4 (17%)</td>
<td>19 (79%)</td>
</tr>
<tr>
<td>Mansul manoeuvres (35%)</td>
<td>16 (39%)</td>
<td>22 (54%)</td>
</tr>
<tr>
<td>Straining (59%)</td>
<td>19 (47%)</td>
<td>19 (47%)</td>
</tr>
<tr>
<td>Hard lumpy stools (28%)</td>
<td>9 (20%)</td>
<td>7 (18%)</td>
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</tbody>
</table>

83% (20/24) of the patients presenting with sensation of blockage/obstruction had a FDD (p=0.002).

69.2% males had a FDD compared to 44.4% females (p=0.037).

In various studies from India and China, Sensation of incomplete evacuation and excessive straining at stools were the most common symptoms.

Indian study (Goyal et al.) included both FC and IBS-C, Factors predicting FDD were Prolonged straining [(99.2%) vs (46.4%) p 0.001], Sensation of incomplete evacuation [(100%) vs 63 (56.3%) p 0.001], Sensation of obstruction/blockage [(68.2%) vs (22.3%) p 0.001] and Manual manoeuvres[15.1% vs 2 (1.8%)].

Chinese study (Zhao et al.) none of the symptoms of Straining, Lumpy or hard stools, Sensation of incomplete evacuation, Sensation of anorectal obstruction/blockage, Manual manoeuvres had a statistical significance.

In the study by Zhao et al., Men were significantly more likely than women to have functional defecation disorders [(23.25, 92%) v/s (37/57, 64.9%) (P = 0.014)].

CONCLUSIONS

A large number of patients with FC had FDD. Male patients and those presenting with symptom of sensation of obstruction/blockage were more likely to have FDD.

REFERENCES