PRACTICAL EVALUATION AND HANDLING OF PATIENTS WITH IRRITABLE BOWEL SYNDROME

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ABSTRACT

Irritable bowel syndrome (IBS) is a functional bowel disorder by unknown aetiology. Several reviews are written about pharmacological and psychological treatment of the disease. Nevertheless, healthcare professionals consider these patients difficult to handle in daily practice. There is an uncertainty about how to measure symptoms and to evaluate the effect of any given treatment. In the absence of objective markers, professionals feel unsure of how to manage the condition and the patients do not feel that they are taken seriously. The development of the short, self-reported questionnaire, Visual Analogue Scale for Irritable Bowel Syndrome (VAS-IBS), offers a practical guide to objective measurement of symptoms and effect of given treatments into numerical values in the daily practice.

Keywords: Irritable bowel syndrome, Visual Analogue Scale for Irritable Bowel Syndrome (VAS-IBS), practical handling, treatment evaluation.

BACKGROUND

Abdominal pain and discomfort in combination with altered bowel habits are very common in the population. Mostly, the complaints are not accomplished by organic changes, detectable at clinical routine examinations. When no organic explanation is at hand, the complaints are called functional gastrointestinal disorders (FGID).[1] The most common among these functional disorders are functional dyspepsia and irritable bowel syndrome (IBS). There is comorbidity between various functional disorders, and between functional disorders and affective disturbances.[2] The aetiology to FGID is uncertain, but inflammatory and endocrine factors have been discussed in the pathophysiology.[3-5] Lifestyle factors such as ingestion of some foods, smoking, and lack of physical activity, may be of importance for disease development and maintenance of symptoms.[6-9]

IBS is the most well-defined of the functional disorders. This syndrome has a prevalence of 10-15% in the general population, and it constitutes the most common diagnosis in primary care with half of the patients referred to a specialist in gastroenterology.[10] Although no changes are apparent in clinical examinations, findings which differ from healthy controls have been described in the brain, the enteric nervous system (ENS), and the intestinal wall when examined by experimental procedures.[3-5,11,12] The diagnosis of IBS is based on the presence of abdominal pain and discomfort in combination with symptoms of altered bowel habits for at least 3 of the last 6 months, without any other explanation such as inflammation, tumour or allergy.[1] Due to the high frequency of the disease and the chronic character of the symptoms, IBS constitutes a great problem, both for the individual patient and for the society, with a high degree of absenteeism from work, difficulties to handle daily life, and a reduced health-related quality of life (HRQOL).[10,13-15] Furthermore, IBS is associated with a higher degree of anxiety in close relations, bad self-esteem, and impaired coping mechanisms.[16]

Due to the absence of organic hall-markers, IBS is considered a difficult disorder for the physician to objectively assess concerning the degree of symptoms and responsiveness to drug treatment.

When patients are presenting themselves at a consultation, it is often difficult to identify the most troublesome symptom, and thus, the first choice of treatment. It is important for the physician to detect differences in the main areas of complaints related to bowel symptoms: abdominal pain, diarrhoea, constipation, bloating/flatulence, vomiting/nausea, and abnormal bowel passage. There is a need to translate the patients´ perception of their symptoms and subjective wellbeing into numbers, which can be used and compared over time, in the same way as in organic bowel diseases. Several questionnaires are available to assess symptoms and HRQOL for research use,[17,18] but few tools are available for clinical handling of the patients.

THE VISUAL ANALOGUE SCALE FOR IRRITABLE BOWEL SYNDROME

The Visual Analogue Scale for Irritable Bowel Syndrome (VAS-IBS) was designed as a short, patient-reported questionnaire to be used in clinical practice as a complement to the case history and to detect differences in the patients´ symptoms. Besides physical health problems, IBS also has a negative influence on a person´s psychological wellbeing as well as on daily life.[19] Questions related to these psychological aspects were therefore included in the questionnaire. The VAS was chosen since it had earlier been used to measure symptoms in patients with IBS.[20] The VAS is preferable to graded scales since the steps between the descriptive terms are not known, the respondents´ view of the meaning of a word may not correspond to the researchers´ view, and there is a risk for clustering of responses beside the labels.[21] Furthermore, the VAS can be used independent of language and cultural difficulties.[22] The patients are asked to record in the VAS-IBS, the overall severity of each of the items on a 100 mm-long horizontal line, where 0 corresponds to very severe symptoms and 100 corresponds to no symptoms at all.[22] The response choice "yes" or "no" were chosen for the two questions concerning urgency and feeling of incomplete evacuation of the bowel passage, because it is more important to know whether these symptoms are present or not, rather than the grade of discomfort.

The final VAS-IBS includes seven items answered on a VAS, namely, abdominal pain, diarrhoea, constipation, bloating/flatulence, vomiting/nausea, perception of psychological wellbeing, and the influence of gastrointestinal symptoms on daily life, and the two questions concerning urgency and feeling of incomplete evacuation of the bowel passage, answered by yes or no (Figure 1).

The VAS-IBS has been psychometrically tested for content and criterion validity, scale, acceptability, item-reduction, internal reliability consistency, simplicity, and speed.[23] The Gastrointestinal Symptom Rating Scale (GSRS) and the Psychological General Well-Being Index (PGWB) were chosen as comparable questionnaires to test the criterion validity of the VAS-IBS.[17,18] The psychometric testing confirmed that the VAS-IBS is an acceptable, homogeneous, patient-reported questionnaire with content and criterion validity and internal consistency reliability, which captures the main physical symptoms in the IBS patient, as well as the disease influence on psychological wellbeing and daily life. The VAS was confirmed relevant for the questionnaire with a floor and ceiling effect beneath 20%.[23] It takes only a few minutes for the patients to complete the questionnaire and no manual is needed. Just by looking at the marks on the line, made by the patient, the healthcare professional can get an opinion of the patients´ main symptom, and thus, the treatment strategy can be planned. In addition, the VAS items can be measured by a ruler, and used for research as a continuous variable.

Patients suffering from IBS may have difficulties in assessing whether the clinical symptoms have improved after treatment or not; especially since the disease course is fluctuating over time, and spontaneous improvements are found. After the initial psychometric testing,[23] there was a need for clinical testing as well. In the clinical setting, correlations between how the women experienced improvement and impairment in physical symptoms, psychological wellbeing, and influence on daily life, and the change in the VAS-IBS were found.[24] The reliability was confirmed by test-retest, without any significant difference between the first and second occasions of completion.[24] Thus, the instrument can be used to evaluate the effect of treatment in an objective, numeric manner and to follow the patient over time.

Apart from being compared to GSRS and PGWB,[23,24] further comparison with Experiences in Close Relationships (ECR-36), Rosenberg Self-Esteem Scale (RSES), and Sense of Coherence

Patient ID _____ Date _____

Answers on the first visit to the health provider:

For how long have you had stomach and/or bowel problems? _____

How have you been feeling during the past two weeks concerning abdominal pain?

Very bad _____ Very good

How have you been feeling during the past two weeks concerning diarrhoea?

Very bad _____ Very good

How have you been feeling during the past two weeks in view of constipation?

Very bad _____ Very good

How have you been feeling during the past two weeks concerning bloating and flatulence?

Very bad _____ Very good

How have you been feeling during the past two weeks concerning vomiting and nausea?

Very bad _____ Very good

How have you been feeling during the past two weeks concerning your psychological wellbeing?

Very bad _____ Very good

How much/little have your gastrointestinal problems influenced your daily life over the past two weeks?

Very much _____ Not at all

Have you during the past two weeks felt an urgency to defecate?

YES ☐ NO ☐

Have you during the past two weeks felt that your bowel has not been completely empty after visiting the toilet?

YES ☐ NO ☐

Figure 1. The final English version of the Visual Analogue Scale for Irritable Bowel Syndrome.

(SOC-13) have been performed.[25] The aim of the study was to evaluate the correlation between the patient´s perception of psychological wellbeing and intestinal symptoms´ influence on daily life, and also between anxiety and avoidance in close relationships, the degree of self-esteem, and coping mechanisms, respectively. A perception of poor psychological wellbeing correlated to a high degree of anxiety, low self-esteem, and impaired coping mechanisms. The overall VAS-IBS showed a high degree of internal consistency reliability, as indicated by a Cronbach's alpha coefficient of 0.793, where each of the items had a high alpha value (0.721–0.806) if the item was deleted.[25] Thus, the single item about overall psychological wellbeing demonstrated a psychological state in accordance with other more time-consuming questionnaires, not suitable for clinical use.[26-28]

PATIENT GROUPS

As each gastrointestinal symptom is assessed separately, the instrument can be used independently of an IBS subgroup, and independently of various aetiologies to the

symptom development.[24,25,29] This may be of importance as the IBS population probably is heterogeneous with several different aetiologies, both within and between subgroups.[30]

Functional bowel symptoms may be present secondary to other organic diseases, e.g. Sjögren´s syndrome and inflammatory bowel disease (IBD).[31,32] Sometimes, it is very difficult to clinically differ between motility disorders such as enteric dysmotility and IBS, without making advanced examinations.[33] In order to examine the ability for the instrument to discriminate between different bowel diseases, patients with gastrointestinal dysmotility, IBS, and functional bowel symptoms secondary to Sjögren's syndrome, had to complete the VAS-IBS.[29] Healthy controls had almost no gastrointestinal complaints at all. Patients with gastrointestinal complaints secondary to Sjögren's syndrome had less severe symptoms than patients with primary bowel diseases, but the VAS-IBS did not differ between IBS and gastrointestinal motility disorders.[29]

Patients with IBD and microscopic colitis may have concomitant IBS-like symptoms apart from their inflammatory disease.[32,34] The study performed in microscopic colitis showed that VAS-IBS may be beneficial also in inflammatory bowel diseases to assess IBS-like symptoms.[34]

DISCUSSION

Since functional gastrointestinal complaints are common and lead to impairments in the daily life of the patient and her/his family, there is a need for an appropriate care of these patients. Mostly, patients with organic disorders, such as tumours and inflammation, have a higher priority in clinical practice, and patients with functional disorders are disadvantaged. Although IBS and other functional disorders may not lead to death or other severe complications, the reduced HRQOL and inability to handle daily life have a great impact on the individual patient.[10,13,15] Our study showed that patients with IBS assessed their own symptoms as severe as the patients with dysmotility; although the latter were on parenteral nutrition and used strong analgesics, and were defined by the physicians as much sicker.[29] The economic burden of IBS for the society may be considerable.[14] As the patients often have comorbidity with affective disturbances[2] and the lack of objective signs to follow and evaluate treatment, the patients with IBS are considered to be difficult to handle in the clinical practice. Healthcare professionals who work in somatic care may feel unsure of how to manage conditions where identifiable, pathophysiological markers do not occur.

The relationship between the patient and the healthcare professional is central to how patients perceive their illness.[35] The inability of healthcare professionals to understand the experiences of patients with IBS can act as a barrier in the treatment and interaction between professionals and their patients. There are several reports, which describe that patients with IBS feel that they have been treated with ignorance and lack of respect at the consultation with the healthcare givers.[36] Thus, there is a great need for a better handling in the clinical practice of these patients and a need of education, both for the patients and for the healthcare professionals.[37] Patients need to feel that her/his symptoms are taken seriously and the VAS-IBS can preferably be used to confirm the patients' physical symptoms and psychological wellbeing. Healthcare professionals need to acknowledge and affirm the patients' perspective of IBS, and the main thing is to build up a trust between the patient and the healthcare giver.[36]

To be able to assess the patients' symptoms by numerical values gives an objective marker of the symptoms to both healthcare professionals and patients. This can make the healthcare givers feel more secure when in contact with the patients, and the patients perceive that there is a measurement performed and the symptoms are confirmed. By objectively measuring the symptoms, one can postulate whether a drug improves the symptoms and can be exposed, this is not always properly evaluated. The previously developed IBS-Severity Scoring System (IBS-SSS) is similar to VAS-IBS in the simplicity, but it does not include the item intestinal symptoms´ influence on daily life; altered bowel habits are also included in the same item, independent of diarrhoea and constipation.[38]

Patients with IBS require a unique set of self-care activities, including adherence to medication regimens,[9] lifestyle and dietary changes,[29] physical activity,[40] stress management, and psychological treatment[41] to be able to live with this condition. A good practical handling and relationship between professionals and patients are rudimentary to

facilitate this treatment, which demands a great effort by the patient to change his/her lifestyle habits and mind.

CONCLUSIONS

The VAS-IBS is a brief, patient-reported questionnaire suitable for use in daily consultations. It offers a practical guide for the healthcare professionals to affirm the patients´ complaints and to give numeric values of the symptoms. The VAS-IBS can also be used to evaluate the effect of prescribed drugs and changes in lifestyle factors since it can be used over time. This questionnaire can be a useful complement to the medical care of patients with IBS.

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