Irritable bowel syndrome (IBS), the prototypic functional bowel disorder, has been the focus of a surge of scientific interest in the last 15 years. This recent attention to a common problem has led to useful knowledge of relevant physiology, epidemiology, diagnosis, important nongastrointestinal clinical correlates, and therapy. Nevertheless, until the study published in this issue of GASTROENTEROLOGY by Talley et al., there had been no direct estimate of the medical care costs in a cohort of individuals with IBS. Their findings emphasize the costly nature of the disorder.

The investigators used a previously validated self-report questionnaire to survey for IBS in a random sample of adult white residents of Olmsted County, Minnesota. They excluded subjects with major psychiatric or medical disease, a history of major abdominal surgery, or nursing home residency. Using a unique billing database linked to all local sources of medical care, the authors analyzed outpatient and inpatient health services charges, except for outpatient medication, in relation to IBS symptom status. The overall annual medical charges increased progressively in groups with no IBS symptoms, some IBS symptoms, and abdominal pain and at least two Manning symptom criteria (defined as IBS subjects). Analysis of individual types of charge showed the same pattern for total outpatient charges only and separately for physician, laboratory, and radiology charges. By extrapolating the annual medical charges for IBS to the U.S. white population, the authors estimated excess charges of $8 billion yearly. Considering this amount, even the least cost-conscious physician should be persuaded to pay closer attention to the expense of caring for his or her patients with IBS.

As impressive as the costs seem they underestimate the total financial impact. Because nonwhite U.S. residents resemble white persons in IBS prevalence, with the possible exception of Asian persons, the inclusion of unsurveyed racial groups in the calculation would increase the annual estimate. Outpatient drug costs, which were not measured, could be a major factor. For example, office-based physicians prescribe medications at about 75% of visits for IBS, and the annual over-the-counter sales of laxatives in chain drug stores alone are about $348 million. The exclusion of subjects with major comorbidity and past surgery may have hidden some IBS-related costs. Furthermore, indirect costs were not measured, such as the economic effect of work absenteeism.

Why does the care of this non—life-threatening disorder cost so much? Until additional research sheds more light on this question, explanations can be deduced that are based on the multifaceted nature of IBS in terms of its somatic and psychosocial correlates, its fluctuating natural history and relation to other functional gastrointestinal disorders, the individualized diagnostic and therapeutic measures required, and the predisposition of some patients with IBS to receive unnecessary health care, including hospitalization and surgery. Consideration of these factors could help physicians care for patients with the disorder with reduced expense.

From the standpoint of health care utilization, IBS is not just a gastrointestinal problem. Although physician consultation is related to the number of IBS-type symptoms, various nongastrointestinal symptoms also play a prominent role in health care seeking. Multisystem complaints, such as fatigue, headache, and backache, occur as often in patients with functional gastrointestinal disorders as in those with organic disease. Subjects identified with a functional gastrointestinal disorder in a U.S. householder survey reported four times as many physician visits for nongastrointestinal as gastrointestinal illness. In health maintenance organization examinees, the number of nongastrointestinal symptoms increases with the severity of IBS, and refractory British patients with IBS report more severe noncolonic symptoms than new patients. Psychosocial factors, such as anxiety and depression, are particularly important in the minority of people with IBS who seek care for their symptoms, especially those with a refractory disorder. Self-reported abuse in childhood or adulthood is another potential cost-related factor because it is associated with multiple somatic complaints, pelvic pain, physician visits, lifetime surgeries, and psychiatric illness. Additional costs accrue from the use of sedatives, oral narcotics, and alcohol abuse. Because of the worsening of IBS symptoms during menstruation and their frequent overlap with gynecologic symptoms, especially chronic pelvic pain, consultation with gynecologists may be needed. Many women with IBS undergo diagnostic pelvic laparoscopy. Therefore, the increase in charges associated with increasing IBS symptoms found in the present study was likely
The symptoms of IBS tend to fluctuate. At any point in time, the number of people gaining them is similar to the number who are losing them. A possible physiological explanation for symptom variation stems from the correlation between temporal change in abdominal pain or bloating and rectal sensitivity. Because of the frequent overlap of functional gastrointestinal symptoms representing different anatomic regions, a patient with IBS may also be evaluated and treated for esophageal, gastroduodenal, and anorectal symptoms. Furthermore, during a 1-year period, there can be so much symptom fluctuation among people with IBS, dyspepsia, gastroesophageal reflux, and unspecified symptoms as to call into question the traditional separation of functional gastrointestinal disorders. Episodic exacerbations of IBS separated by less symptomatic periods of months to years as well as its interchange with other symptoms can lead to repeat requests for medical assistance when the recurrent or new symptoms arise.

A diagnosis of IBS can be made in most patients by typical symptoms and negative results of physical examination and basic laboratory and colon structural studies, which should be less costly than diagnosis based only on the exclusion of organic disease. Additional testing may be needed in patients with intractable symptoms. In a long-term study of patients in Olmsted County by Owens et al., once a patient’s symptoms were attributed to IBS, an alternate explanatory diagnosis of organic disease was rarely made. Therefore, after a confident diagnosis is made, repeat diagnostic investigation is usually not necessary for an exacerbation of previous similar symptoms.

The guiding principle of current therapy consists of individualizing treatment, depending on the nature and severity of symptoms and psychological factors. Usually, the therapeutic approach helps patients decrease and accept symptoms rather than eliminate them. The importance of the physician-patient relationship in reducing health services has been documented by the study performed by Owens et al. The strength of the relationship was measured by objective criteria in the medical records at the time when IBS was initially diagnosed. Fewer follow-up visits during a period of many years for IBS-related symptoms were associated with notations of the patient’s psychosocial history, factors precipitating the patient’s request for medical assistance, and discussion about test results and diagnosis. Also, a lower hospitalization rate was related to a strong relationship. The study did not survey how the patients considered their health, but poor health perception alone, which could be related to the physician-patient interaction, correlates with increased anxiety, depression, and health care utilization.

It has long been recognized that patients with certain psychological characteristics and chronic pain are prone to excessive medical treatment, including surgery. The profile of a typical surgery-prone patient includes a past history of childhood abuse or deprivation, pain-related surgeries, nonresponse to multiple medical treatments, and a family history of multiple surgeries. The patient may present urgently with unbearable pain and insist that the physician cure it. These traits apply to a minority of patients with IBS, mainly those with the most persistent symptoms. The risk of unnecessary surgery has been corroborated by surveys of individuals with IBS, which have shown an increased risk of extra-abdominal and abdominal surgery. Hysterectomy or ovarian surgery has been reported in proportions of female patients with IBS as high as 47% and 55% and has been performed more often in patients with IBS than in comparison groups. These findings emphasize that general and gynecologic surgeons should be familiar with the pain of IBS to reduce inappropriate surgery.

More research should focus on why so much money is being spent on these patients and how the costs can be reduced. What proportion of the expense goes for IBS-related symptoms vs. other aspects? Are there characteristics that could identify patients early on who will be the high users of health care so that more attention could be placed on them to control costs? Would closer collaboration between different specialists who see patients with IBS for the same complaint, such as gastroenterologists and gynecologists, result in more accurate and less expensive diagnosis and treatment? The great economic burden of IBS documented by Talley et al. should stimulate more cost-related studies. In the meantime, we should be mindful of the expenses while we care for patients. Billions of dollars are involved.

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References

Microsatellite Instability as an Indicator of Hereditary Susceptibility to Colon Cancer

See article on page 1765.

More than 80% of colorectal carcinomas from patients with hereditary nonpolyposis colorectal cancer (HNPPC) and approximately 15% of apparently sporadic colorectal cancers show instability at short tandem repeat sequences (microsatellites). Although mutations (one germline + one somatic) in the four known DNA mismatch repair genes (MSH2, MLH1, PMS1, and PMS2) are likely to be responsible for microsatellite instability in most patients with HNPPC, less is known about the genetic basis of this abnormality in apparently sporadic cancers. Microsatellite instability in the latter...