

General Practice Prevention of Recurrent Abdominal Pain

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ABSTRACT

Background: Primary care physicians and gastroenterologists both can find chronic abdominal pain difficult to diagnose and treat because of the breadth of the possible causes and the extent to which the workup is frequently fruitless. The vast majority of individuals with persistent abdominal pain have a benign cause or a functional problem (such as irritable bowel syndrome) because of the absence of red flag characteristics that precede more acute conditions. Healthcare systems are strained by the high price tag of diagnostic testing. When patients are seen in the primary care setting, it is best to take a methodical approach to both the evaluation and implementation of their care.

Investigating unexplained stomach discomfort requires first performing a thorough history and physical examination. Clinical characteristics, warning symptoms, and symptom severity should guide the scope and timing of diagnostic investigations. In this article, we'll look at the diagnostic methods used by primary care physicians for assessing persistent abdominal discomfort. Focused Messages: Primary care physicians are responsible for diagnosing and treating patients with both organic and functional diseases, referring patients to specialists when necessary, and treating the source of pain. After all possible organic pathology has been ruled out, only then should the functional abnormalities be evaluated. The patient should be referred for psychological support (e.g., cognitive therapy) in addition to the existing pharmaceutical therapeutic alternatives after a diagnosis of functional pain has been established, and further testing should be avoided.

INTRODUCTION

According to the IASP, pain is an unpleasant sensory and emotional experience connected with real or potential tissue injury [1]. Pain that lasts for three months or more on a regular basis is considered chronic [2,3]. General practitioners typically handle cases of chronic abdominal pain, which can be difficult due to a wide range of possible causes and a lengthy diagnostic process. Despite seeing a primary care physician, 24-35 percent of patients still have no clear diagnosis. Health care costs are inflated for people with chronic abdominal pain because the disorder is frequently misdiagnosed and many primary care physicians do not know how to

approach the diagnosis in a cost-effective manner (Chronic Abdominal Pain Dig Dis 2021;39:606-614 607 DOI: 10.1159/000515433).

Abdominal pain can be caused by a variety of GI and systemic conditions. The primary care physician is responsible for evaluating a patient's symptoms, making a preliminary diagnosis, and then directing any necessary follow-up tests.[4-6] A thorough history, thorough physical examination, and diagnostic tests specific to the clinical presentation should comprise the initial workup.

The patient should be referred to a specialist if alarming symptoms are present, as this may indicate the presence of an underlying organic condition. On the other hand, many people with organic illnesses don't experience any warning signs [6, 7].

Functional dyspepsia (FD), irritable bowel syndrome (IBS), and centrally mediated abdominal pain syndrome (CMAPS) are examples of FGIDs or disorders of gut-brain interaction that commonly contribute to chronic abdominal discomfort (CAPS). After organic pathology has been thoroughly ruled out, these possibilities can be explored.

This article's purpose is to assist primary care physicians in systematically exploring the most likely differential diagnosis, beginning with the most crucial aspects of the patient's history and physical exam. In order to narrow down the possible causes of stomach discomfort, a thorough patient history is essential. This is because it allows for a more focused physical examination.

Epidemiology

According to a recent systematic review conducted in the United States, abdominal pain is the most prevalent symptom of the digestive system and a major reason for both inpatient and outpatient visits. Prevalence estimates from international cross-sectional studies range from 22 to 25% [4,8], with a higher percentage of women (24%) than males (17%) reporting stomach pain.

In the United States, over eighty-four percent of individuals who experience abdominal pain visit their family doctor, while only about forty percent visit a gastroenterologist [9]. Ten percent of all primary care visits are for acute abdominal pain, whereas Irritable Bowel Syndrome (IBS) is the leading diagnosis for subacute or chronic abdominal pain (13% of visits) [10]. After seeing a primary care physician, 24-35% of patients still don't have a firm diagnosis [4, 5].

Chronic abdominal discomfort is most commonly brought on by FGIDs, or diseases of gut-brain interaction. Most FGID cases occur between the ages of 18 and 39, and the prevalence of FGIDs is estimated to be over 40% worldwide (Rome Foundation Global Study, 2014, 14).

Irritable bowel syndrome (IBS) (1-4%), functional diarrhoea (FD) (2-7%), functional constipation (7-11%), and unidentified bowel disorder (UBD) (0%-11%) are the most prevalent FGIDs responsible for chronic abdominal pain. CAPS (previously known as functional abdominal pain syndrome [FAPS]) is a less common cause of FGID. Similar to the overall

demographic distribution of FGIDs, FAPS is up to twice as common in women and those between the ages of 35 and 44 [15, 16].

Smoking has been found as a consistent risk factor for FGID, which also demonstrates a relationship with other chronic pain syndromes [17], despite the higher geographic variation among FGID rates.

The ventral, thoracolumbar, and lumbosacral afferent nerves all carry information about visceral discomfort to the brain. Innervation of the abdominal viscera occurs via both the afferent and efferent pathways [22]. Serosal surfaces, the mesentery, and the walls of hollow viscera all house receptors. In contrast to visceral nociceptors, which are activated by distension, pressure, and ischemia and are therefore sensitive to inflammatory mediators [23], mechanoreceptors respond predominantly to chemical stimuli.

True visceral pain can cause chronic stomach discomfort that is difficult to pinpoint and is accompanied by a wide range of other symptoms, including nausea, vomiting, sweating, and emotional responses like sadness and anxiety.

Intense pain is not always associated with injury (functional disorders), and its strength is not always proportional to the severity of the disease (mild/no pain in colon cancer, severe pain while passing a stool in IBS).

Causes of persistent visceral abdominal pain include: Chronic inflammation (as in pancreatitis, cholecystitis, and inflammatory bowel disease); ischemia from atherosclerosis or vasoconstriction (as in mesenteric ischemia); mechanical causes (as in kidney stones and bile duct stones); and genetic predisposition.

HISTORY

Despite the modest sensitivity and specificity of a medical history and physical examination in detecting the various causes of abdominal pain [28], they are the initial steps in the management of a patient with persistent stomach pain. Various aspects of stomach pain, such as its location, timing, nature, aggravating or relieving circumstances, associations, and severity (SOCRATES [mnemonics]), can provide information that aids in a diagnosis (Table 2). Because different pain syndromes tend to manifest in distinctive areas of the body, information on where and how widely spread abdominal pain is can be useful in narrowing the diagnosis. Pathology of the biliary, pancreatic, gastric, or duodenal systems can all contribute to discomfort in the upper abdomen.

Physical Examination

Next, a thorough physical examination is performed to rule out serious pathology, define the source of the discomfort, and determine its radiating patterns. This involves taking vital signs, performing a thorough abdominal exam, and performing a rectal examination (organomegaly, masses, and acute abdomen). It is crucial to rapidly rule out the potential of a surgical abdomen in the event of an acute bout of chronic abdominal discomfort.

For the best chance of diagnosing a systemic illness, it's best to get a thorough physical exam: dry mouth (dehydration), pale eyes (anaemia), icteric sclera (hepatobiliary disease), dermatitis herpetiformis (celiac disease), erythema nodosum, pyoderma gangrenosum, and Sweet syndrome (inflammatory bowel disease), acanthosis nigricans (underlying malignancy), prominent clavicles, sunken eyes, and temporal wasting (significant weight loss), cost.

Main Aspects and Challenges of Abdominal Pain in the Elderly

Geriatric individuals might be challenging to evaluate because they often delay seeking medical help, have nonspecific symptoms and signs, and are on multiple medications (such as beta-blockers, steroids, NSAIDs, and opiates) that could affect their response to disease.[19-21] Common age-related declines in hearing and vision as well as cognitive impairments can hinder the patient's ability to offer a history.

Diseases of the digestive tract, such as peptic ulcers, biliary colic (both calculous and acalculous), diverticulitis, chronic mesenteric ischemia, and colon cancer, are common in the elderly and are responsible for the majority of cases of chronic abdominal discomfort. Constricted heart function, genitourinary symptoms (e.g. pyelonephritis, prostatitis, neurogenic bladder, and uterine prolapse), Herpes zoster, depression, and somatization are just few of the extra-abdominal disorders that can show as abdominal discomfort [24-26].

Older patients generally need CT scans with intravenous contrast because they have more specialised organic diseases than younger ones. Serum Cr is misleadingly high in the elderly due to decreased muscle mass and protein intake, so the doctor should instead use the glomerular filtration rate [18].

Renal and hepatic failure, dementia and fall risk, and patient tolerance or intolerance of opiates should all be considered when choosing an adequate dose of analgesic medication for treatment [19]

CONCLUSION

Diagnosing the cause of chronic stomach pain can be difficult and requires a thorough workup in order to rule out unnecessary or futile investigations and instead focus on identifying the underlying functional or organic. If you take a thorough history and perform a thorough physical examination, you should be able to narrow down the list of possible diagnoses and avoid performing any tests that aren't absolutely essential. It is important to prescribe tests like those performed in the lab, endoscope, and imaging in a cost-effective and logical manner.

Conflict of Interest

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