V.N. KARAZIN NATIONAL UNIVERSITY
SCHOOL OF MEDICINE
DEPARTMENT OF PROPAEDEUTICS OF INTERNAL MEDICINE AND PHYSICAL REHABILITATION

MANAGEMENT FOR PATIENTS WITH CHRONIC ABDOMINAL PAIN

ASSISTANT ARINA LAKHONINA

DEFINITION

- Abdominal pain is considered **chronic** when it has been occurring constantly or intermittently over at least six months

- The pain can be originated from any system, such as the genitourinary, gastrointestinal, and gynecological tracts

CLASSIFICATION

- Chronic abdominal pain is divided into:

✓ Organic

Have clear anatomical, physiological, or metabolic cause and can also arise from the abdominal wall, nerve or fascia

✓ Functional.

Common but more challenging condition when no clear source of pain, despite thorough investigations

STEP-BY-STEP DIAGNOSTIC APPROACH

Assessment includes 4 major components:

1. History.
2. Physical examination.
3. Psychosocial assessment.
4. Investigations

Diagnosis and management of patients with chronic abdominal pain is often challenging at primary care setting.

- Factors that contribute to this include:

1. Poor sensitivity of the history and physical examination
2. A broad differential diagnosis that crosses several specialties, and an often negative diagnostic work

COMMON CAUSES

- ✓ The causes of chronic abdominal pain are many
- ✓ Common differential diagnosis of chronic abdominal pain for adults that can be managed are as below:

1. Functional dyspepsia
2. GERD
3. Peptic ulcer disease (PUD)
4. Irritable bowel syndrome (IBS)
5. Nephrolithiasis
6. Interstitial Cystitis (IC)
7. Pelvic inflammatory disease (PID)
8. Functional abdominal pain syndrome (FAPS)
9. Biliary Pain
10. Functional Biliary Sphincter Of Oddi Disorder

1. HISTORY OF THE PATIENT

1. Take detailed history from the patient
2. The initial step in evaluating a patient with chronic abdominal pain is to elicit a detailed history from the patient. The chronology of the pain, including its abruptness of onset and duration, and its location and possible radiation
3. The patient should be questioned about the intensity and character of the pain, with the understanding that these parameters are subjective.

2. PHYSICAL EXAMINATION

The physical examination should be integrated with findings from the history and other collateral information to focus the diagnostic workup on possible diagnoses.

The physical examination should first focus on the vital signs. Fever, tachycardia, tachypnoea, and hypotension suggest an acute illness requiring urgent evaluation

The abdominal examination should use a combination of inspection, auscultation, percussion, and palpation. The most critical step for a patient with an acute exacerbation of chronic abdominal pain is to ascertain promptly whether a surgical abdomen is present.

2. PHYSICAL EXAMINATION

The abdomen should be auscultated to detect an abdominal bruit, because the presence of a bruit may suggest chronic mesenteric ischemia (intestinal angina).

Abdominal palpation for the presence of organomegaly, masses, and ascites and examination for hernias are particularly pertinent. In some cases examination is unremarkable, but rebound tenderness, guarding, or tenderness on palpation require urgent consideration.

3. PSYCHOSOCIAL ASSESSMENT.

Evaluation of psychosocial factors can help to determine an appropriate management plan and minimise unnecessary investigations. Affective disturbance can both result from and contribute to the experience of chronic pain. Clinical presentation, symptom severity, and response to treatment can all vary according to mental state abnormalities. Symptom fluctuations and mental state should be monitored closely

4. INVESTIGATIONS

Appropriate investigations should be tailored to history and examination findings and be made on a case-by-case basis. In the absence of alarm features, laboratory and imaging tests should be ordered in a conservative and cost-effective manner.

1. **Laboratory.** The laboratory evaluation can be helpful, but the clinician must first distill pertinent facets of the history and physical examination to focus the laboratory assessment. Existing information may be available for review.

Standard laboratory tests include:

- ✓ FBC with differential, to screen for infection or anaemia. The platelet count and ESR may signify an inflammatory process.
- ✓ Serum electrolytes, glucose, creatinine, and urea for metabolic causes.
- ✓ Liver function tests, lipase, and amylase, particularly in patients with upper abdominal pain.
- ✓ Urine analysis and urine culture to help exclude UTI and interstitial cystitis.

Additional laboratory tests based on the individual case include:

- ✓ Stool tests for culture, ova and parasites, and Giardia antigen should be done if bacterial, parasitic, or protozoal cause of abdominal pain is suspected.
- ✓ Urine or serum pregnancy test: this should also be done prior to radiographic or endoscopic investigations.
- ✓ Serology testing for Helicobacter pylori in patients with upper GI symptoms, including early satiety and epigastric discomfort (i.e., dyspeptic symptoms).
- ✓ Vaginal swabs, pap smears, beta-human chorionic gonadotropin, prostate-specific antigen, and urine cytology can be helpful in certain cases with pelvic and lower abdominal pain.

2. Endoscopy

- ✓ Endoscopic and imaging studies have important roles in diagnosing and excluding many causes of chronic abdominal pain.

- ✓ All patients >50 years old with abdominal pain should have a GI tract endoscopy.

- ✓ Colonoscopy is indicated if the pain is in the lower abdomen and/or it is associated with changes in bowel habit.

- ✓ Upper endoscopy is indicated if the pain is localized in the upper abdomen, particularly if other upper GI symptoms (early satiety, nausea, vomiting) are present. There are no guidelines suggesting when these tests in younger (years old) patients should be ordered.

3. Imaging

- ✓ Further investigations depend on the clinical findings. Upper abdominal ultrasound may be indicated to evaluate right upper quadrant or epigastric pain, particularly if elevated liver or pancreatic enzymes are found.

- ✓ Pelvic abdominal ultrasound and trasvaginal and/or transrectal ultrasound is indicated for evaluating lower abdominal pain.

- ✓ CT scanning can help to evaluate dilated intestinal loops; exclude partial intestinal obstruction; detect abnormalities in other abdominal organs (e.g., pancreas, liver, kidneys); identify inflammatory processes (e.g., inflammatory bowel disease, diverticulitis, abscesses); and investigate retroperitoneal or pelvic masses.

NB! If all investigations are negative, the likely diagnosis is a functional GI disorder. The diagnosis of specific functional disorders depends on the presence and characteristics of additional associated symptoms. Irritable bowel syndrome and functional dyspepsia are the most common causes of chronic abdominal pain in adults.

FUNCTIONAL DYSPEPSIA

1. Prevalence: 10-30%
2. Clinical Features. Rome IV criteria :

One or more of the following:

Bothersome postprandial fullness
Bothersome early satiation
Bothersome epigastric pain
Bothersome epigastric burning

AND

No evidence of structural disease (including at upper endoscopy) that is likely to explain the symptoms

*Must fulfill criteria for B1a. PDS and/or B1b. EPS

**Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

3. PE/Ix : Normal

FUNCTIONAL DYSPEPSIA

4. Management

- ✓ Diet advice & avoid NSAID
- ✓ Antacids
- ✓ H2-Receptors antagonist/ PPI (Epigastric pain syndromes)
- ✓ Prokinetics for 4 weeks (Post-prandial distress syndrome)
- ✓ Refer surgical or gastro if no response to treatment for 4 weeks or Alarm symptoms

GERD

1. Prevalence. 8.8–25.9% in Europe
2. Clinical Features

✓ Typical symptoms: Heart burn, regurgitation, dysphagia
✓ Atypical symptoms: dyspepsia, epigastric pain, nausea, bloating and belching may be indicative to GERD
✓ Extra-esophageal symptoms: chronic cough, asthma and chronic laryngitis

3. PE/Ix. Normal

GERD

4. Investigations :

- ✓ Diagnosis on based of clinical symptoms.
- ✓ Additionally: clinical blood test, biochemical blood test, pH monitoring using a telemetry system, 24-hour intraesophageal monitoring, test for Helicobacter-pylori, X-ray examination of the esophagus, fibroesophagogastroscopy

GERD

5. Management

✓ Exlude cardiac cause in patients with chest pain

✓ Extra esophageal symptoms; need careful evaluation for non-GERD causes

✓ Non-pharmacotherapy. - Lifestyle modification.

- Avoid drugs: anticholinergics, Theophylline.
- If taking Tetracycline, Slow Release Potassium, Iron sulphates, corticosteroids, NSAIDS - avoid taking dry, use ample fluids

✓ Pharmacotherapy

- PPI for 8 weeks

✓ Refer for endoscopy if

- Failed treatment with PPI after 2 months
- Presense of red flag symptoms
- High risk group
- History of Barret's esophagus
- Dysphagia

PEPTIC ULCER DISEASE (PUD)

1. Prevalence. 1-year prevalence based on physician diagnosis was 0.12–1.50%
2. Clinical Features.

✓ History of smoking, NSAIDS, Aspirin, H.pylori infection
✓ Epigastric pain; gnawing or burning sensation especially after meal
✓ Fullness, bloatedness, nausea, vomit a few hours after meal, dyspepsia, heartburn, chest discomfort, hematemesis, melena or symptoms of anaemia
✓ PE/Ix. Clinical analysis of blood, intragastric pH-metry, tests for H. pylori, coprologic examination of feces, serum iron, gastroduodenoscopy with biopsy

PEPTIC ULCER DISEASE (PUD)

<u>4. Management</u>

✓ Stop NSAIDS, Aspirin

✓ Prevention: - if NSAIDS is needed, choose COX-2 selective inhibitor at the lowest efficacy dose plus daily PPI

- If Aspirin is needed as secondary CVD prevention, consider long term PPI therapy

- If Aspirin was given for primary prevention, antiplatelet should not be resumed

- Quit smoking

✓ Offer full dose PPI eg. Omeprazole 20mg OD or H2RA therapy for 8 weeks

✓ Refer SOPD/ Gastro for OGDS

✓ Red flag: Anemia, Early satiety, Unexplained weight loss, dysphagia/ odynophagia, recurrent vomiting, Family history GI cancer

IRRITABLE BOWEL SYNDROME (IBS)

1. Prevalence: 7-10% in the world
2. Clinical Features

✓ Diagnosis - ROME IV Criteria:

Recurrent abdominal pain on average at least 1 day/week in the last 3 months, associated with **two or more** of the following criteria:

Related to defecation

Associated with a change in frequency of stool

Associated with a change in form (appearance) of stool

* Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

- Additional symptoms Abdominal bloating, distension, tension or hardness
- Symptom made worse by eating
- Passage of mucus
- Age onset 20-30 y.o

IRRITABLE BOWEL SYNDROM

4. PE/Ix

✓ Overall healthy or maybe tense or anxious
✓ May have sigmoid tenderness or palpable sigmoid cord
✓ No investigations for age <50y.o with typical IBS sign and symptoms

5. Management

✓ Lifestyle modification: increase physical activity and dietary changes
✓ Drug therapy:

- Consider antispasmodic agents, take as required
- Laxative for constipation, not lactulose
- Loperamide for diarrhea
- Antidepressants if all above not helped

✓ Surgical or specific gastroenterological help in case of alarm features:

- Loss of weight
- Anemia
- Family history of gastrointestinal organic diseases (IBD, colon cancer)

NEPHROLITHIASIS

1. Clinical Features

- ✓ History of recurrent renal colic pain-severe pain from flank and radiate inferiorly and anteriorly
- ✓ History of urinary tract calculi
- ✓ UTI
- ✓ Haematuria
- ✓ Urinary symptoms – stones lodged at ureterovesical junction(frequency, dysuria), stones lodged at intramural ureter(suprapubic pain, frequency, urgency, dysuria, stranguria, pain tip of penis)
- ✓ Asymptomatic in small, non-obstructing stone or staghorn calculi
- ✓ Family history of renal calculi

NEPHROLITHIASIS

2. PE/Ix
- Abdomen – unremarkable
- urine examination, Renal profile, Serum Uric Acid
- Serum calcium/ phosphate and ± Serum parathyroid –
- Plain KUB Xray
- KUB USG
- CT Urogram (CTU)-indicated if USG and KUB x rays negative for stone despite strong suspicion of urolithiasis/ persistent haematuria •

NEPHROLITHIASIS

3. Management

- ✓ Dietary modifications-increase fluid intake (8 glasses/day), Low salt and protein diet
- ✓ Dietary calcium: 600 – 800 mg/day
- ✓ Medications: Alkalizing agent. Allopurinol if evidence of uric acid stones
- ✓ Refer urologist if

- Stones >6 mm
- Deranged renal profile(urgent referral)
- USI showed obstructive uropathy (urgent referral)

INTERSTITIAL CYSTITIS (IC)

1. Prevalence: In women were 18.1 per 100,000. Both sexes were 10.6 cases per 100,000 (26)
2. Clinical Features

✓ Suprapubic pain
✓ Associated with urinary symptoms more than 6 weeks without any infection or other clear cause
✓ Dyspareunia in women
✓ For male, pain during orgasm or after sex.
✓ Some people with IC have other health issues such as irritable bowel syndrome, fibromyalgia, and other pain syndromes.

INTERSTITIAL CYSTITIS (IC)

3.PE/Ix • Suprapubic tenderness • STI screening & Urinalysis: normal, Urine culture: no growth • KUB x ray, USG ± CTU – no evidence of urinary calculi

4. Management

✓ So far no cure - refer urologist to exclude malignancy

✓ Treatment based on symptoms and monitoring pain and quality of life.

✓ Lifestyle modification. Exercise: Gentle stretching exercise, bladder training, physical therapy. Stress management. Avoid certain food that trigger the symptoms. Quit smoking

✓ Outpatient management:

- NSAIDS – Aspirin, Ibuprofen
- TCA: Amitriptyline
- Severe pain – narcotic analgesics eg acetaminophen with codein
- TENS (transcutaneous electrical nerve stimulation)

PELVIC INFLAMMATORY DISEASE (PID)

1. Prevalence. The number of visits to physicians for PID among women aged 15–44 was 39.8%
2. Clinical Features

✓ History of high risk sexual behaviour
✓ History of instrumentation of uterus insertion
✓ Abnormal vaginal or cervical discharge
✓ Lower abdominal pain
✓ Abnormal vaginal bleeding: IMB, PCB, menorrhagia

PELVIC INFLAMMATORY DISEASE (PID)

3. PE/Ix. Febrile (>38 °C), lower abdominal tenderness, adnexal or cervical motion tenderness

- ✓ Tests for Gonorrhoea and Chlamydia, CBC
- ✓ Ultrasound, Diagnostic Laparoscopy

4. Management

- ✓ Safe sex
- ✓ Empower knowledge on long term complication
- ✓ Appropriate analgesia
- ✓ Broad spectrum antibiotic to cover N.Gonorrhoea, C. Trachomatis and anaerobic infection
- ✓ Referral if diagnosis uncertainty, severe symptoms, presence of a tuboovarian abscesses, inability to tolerate an oral regime and pregnancy

FUNCTIONAL ABDOMINAL PAIN SYNDROME (FAPS)

FAPS is a distinct medical disorder. Evidence suggests that the syndrome relates to central nervous system (CNS) amplification of normal regulatory visceral signals, rather than functional abnormalities in the gastrointestinal tract.

The disorder is characterized by continuous, almost continuous, or at least frequently recurrent abdominal pain that is poorly related to bowel habits and often not well localized.

FAPS is properly understood as abnormal perception of normal (regulatory) bowel function rather than a motility disorder.

FUNCTIONAL ABDOMINAL PAIN SYNDROME (FAPS)

1.Rome IV Criteria

- ✓ Continuous or nearly continuous abdominal pain
- ✓ No or only occasional relationship of pain with physiological events (e.g., eating, defecation or menses)†
- ✓ Pain limits some aspect of daily functioning††
- ✓ The pain is not feigned
- ✓ Pain is not explained by another structural or functional gastrointestinal disorder or other medical condition
- ✓ FAPS is typically associated with psychosocial comorbidity, but there is no specific profile that can be used for diagnosis

**Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis

†Some degree of gastrointestinal dysfunction may be present

††Daily function could include impairments in work, intimacy, social/leisure, family life, and caregiving for self or others

Typically, FAPS patients describe abdominal *pain in emotional terms*, as constant and not influenced by eating or defecation, as involving a large anatomic area rather than a precise location, as one of several other painful symptoms, and as a continuum of painful experiences beginning in childhood or recurring over time.

FAPS shows a close relationship with a variety of psychiatric and psychological conditions. Clinical evidence suggests that there is a strong association of aversive early life events and certain types of psychosocial stressors with increased pain reports among patients with functional gastrointestinal disorders.

2. Management

Management is based on a therapeutic physician-patient relationship and empirical treatment algorithms using various classes of centrally acting drugs, including antidepressants and anticonvulsants. The choice, dose, and combination of drugs are influenced by psychiatric comorbidities.

Psychological treatment options include psychotherapy, relaxation techniques, and hypnosis. Refractory FAPS patients may benefit from a multidisciplinary pain clinic approach.

BILIARY PAIN

Pain located in the epigastrium and/or right upper quadrant and **all** of the following:

1. Builds up to a steady level and lasts 30 minutes or longer
2. Occurring at different intervals (not daily)
3. Severe enough to interrupt daily activities or lead to an emergency department visit
4. Not significantly (<20%) related to bowel movements
5. Not significantly (<20%) relieved by postural change **or** acid suppression

Supportive criteria

The pain may be associated with:

1. Nausea and vomiting
2. Radiation to the back and/or right infra subscapular region
3. Waking from sleep

FUNCTIONAL BILIARY SPHINCTER OF ODDI DISORDER

- Criteria for biliary pain*

1. Elevated liver enzymes or dilated bile duct, but not both
2. Absence of bile duct stones or other structural abnormalities

Supportive criteria

1. Normal amylase/lipase
2. Abnormal sphincter of Oddi manometry
3. Hepatobiliary scintigraphy

*Criteria for biliary pain: Pain located in the epigastrium and/or right upper quadrant and **all** of the following:

1. Builds up to a steady level and lasts 30 minutes or longer
2. Occurring at different intervals (not daily)
3. Severe enough to interrupt daily activities or lead to an emergency department visit
4. Not significantly (<20%) related to bowel movements
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THANK YOU FOR ATTENTION