Differential diagnosis of appendicitis

Uptodate

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Introduction

- A variety of inflammatory and infectious conditions can mimic the signs and symptoms of appendicitis in RLQ

Perforated appendix

- During first 24 hours after the onset of pain, 90 percent of patients develop inflammation but not perforation
- A perforated appendix must be considered in patients with:
- 1)T>39.4
- 2)WBC>15000
- 3) Immaging shows fluid collection in RLQ

Cecal diverticulitis

- Usually occurs in young adults
- Right sided diverticulitis: 1.5 percent in patients of western countries and 75 percent in Asian population
- CT scan of abdomen with intravenous and oral contrast is the diagnostic test of choice

Meckel’s diverticulitis

- Meckel’s diverticulum is congenital remnant of the omphalomesentric duct and is located on the small intestine 2 feet from ileocecal valve
- If an inflamed appendix is not found on abdominal exploration, surgeon should search for Meckel’s diverticulitis

Acute ileitis

- Due most commonly to and acute self-limited bacterial infection
- Germs: Yersinia, Campylobacter, Salmonella and etc
- Should be considered when acute diarrhea is a prominent symptom
- Yersiniosis: abdominal pain, fever, N/V. leukocytisis
- Localization of abdominal pain in RLQ + acute diarrhea is a diagnostic clue for yersiniosis

Crohn’s disease

- Can present with symptoms similar to appendicitis particularly when localized to the distal ileum
- Hallmarks: Fatigue, prolonged diarrhea, abdominal pain, weight loss and fever with or without gross bleeding
- Crohn’s disease should be suspected in patients with persistant pain after surgery, specially if the appendix is histologically normal

Gynecologic and obstetrical conditions

Tubo-ovarian abscess

- An inflammatory mass involving the fallopian tube, ovary and occasionally other adjacent pelvic organs
- Found most commonly in reproductive-age women and typically results from upper genital tract infection
- It usually results from pelvic inflammatory disease(PID)
- Classic presentation: lower abdominal pain, fever, chills and vaginal discharge
- Clinical Hx and CT scan can differentiate TOA from appendicitis

Pelvic inflammatory disease

- Lower abdominal pain is the cardinal presenting symptom
- Recent onset of pain+ worsening during coitus or jarring move+ onset of pain during or shortky after menses => suggestive of PID
- On Ph/E: ½ have fever, diffuse tenderness greatest in lower quadrants, rebound tenderness and decreased bowel sounds are common
- On pelvic examintion: purulent endocervical discharge, acute cervical motion,adenexal tenderness with bimanual examination strongly suggests PID
- Dx: Clinical Hx and CT scan

Ruptured ovarian cyst

- Commonly in women in reproductive age
- Sudden onset of unilateral lower abdominal pain
- RLQ is more common, rectosigmoid colon protects left ovary from trauma
- Pain often begins during strenuous physical activity like exersice or coitus+ light vaginal bleeding due to a drop of ovarian hormones
- Dx: clinical Hx+ CT scan

Mittelschmerz

- Midcycle pain in an ovulatory woman caused by normal follicular enlargement Just prior to ovulation
- pain is typpically mild and unilateral
- It occurs midway between menstural periods and may last for a few hours to a couple of days

Ovarian and fallopian tube torsion

- Twisting of the ovary on its ligamentous support
- Isolated fallopian tube torsion is uncommon
- It results the loss of blood supplies to the ovaries
- Expedient diagnosis is important to preserve ovarian function
- Most common symptom: sudden lower abdominal pain with waves of N/V+ fever
- Dx: clinical Hx + CT scan imaging

Endometriosis

- It is defined as endometrial stroma and glands at extrauterine sites (usually pelvis)
- Most common symptoms: pelvic pain(more severe during menses), dysmenorrhea, deep dyspareunia, cyclical bowel or bladder syndromes, abnormal menstural bleeding, infertility
- On Ph/E: tenderness of posterior fornix
- Dx: ultrasonography

Ovarian hyperstimulation syndrome

- OHSS is and iatrogenic complication of ovulation induction therapy and may be accompanied by or mistaken for cyst rupture
- Clinical findings: bloating, N/V, diarrhea, lethargy, shortness of breath, rapid weight gain
- Severe form of OHSS: large ovarian cysts, ascitis and in some patients pleural and/or pericardial effusion, electrolyte imbalance, hypovolemia and hypovolemic shock.

Ectopic pregnancy

- In women with acute pelvic pain or abnormal vaginal bleeding, a posotive pregnancy test suggests the presence of an EP if intrauterine pregnancy can’t be visualized sonographically
- If intrauterine pregnancy is seen, the pain may be due to a ruptured ovarian cyst or heterotrphic pregnancy
- Dx: ultrasonography+ a positive pregnancy test

Acute endometritis

- It occurs after and obstetrical delivery or rarely after an invasive uterine procedure
- Dx: presence of fever+ gradual onset of uterine tenderness, foul uterine discharge+ leukocytosis => in an at-risk setting

Thanks for your attention