APPROACH TO ACUTE PELVIC PAIN IN WOMEN

WOMEN OF CHILDBEARING AGE WHO PRESENT WITH LOW ABDOMINAL PAIN OFTEN HAVE CONDITIONS RELATED TO THE FEMALE REPRODUCTIVE TRACT OR BLADDER

THESE CONDITIONS RANGE FROM THE BENIGN TO THE IMMEDIATELY LIFE-THREATENING

YOUNGER PATIENTS AND THOSE WITH MULTIPLE SEXUAL PARTNERS AS WELL AS PRIOR EPISODES ARE MORE LIKELY TO HAVE PID

RISK OF ECTOPIC PREGNANCY HIGHER IN THOSE WITH PID, PELVIC SURGERY, IUD, PRIOR ECTOPIC, IVF

PATHOPHYSIOLOGY:

- Visceral pain afferents supplying the pelvic organs have common innervation with the appendix, ureters and colon
    - Significant overlap makes localization difficult
- Pain may be initiated by inflammation, distention or ischaemia of an organ
    - Also think spillage of blood, pus or other material into the pelvis

DIAGNOSTIC APPROACH

- Most causes of pelvic pain fit into THREE categories:
    - REPRODUCTIVE TRACT
    - URINARY TRACT
    - INTESTINAL TRACT
- Also beware the subset of PREGNANCY-RELATED disorders → both early (ectopic) and later in pregnancy
- It is rare that any particular finding on history or physical exam is reliable to conclusively make or exclude a particular diagnosis
    - This includes bimanual pelvic examination → can be valuable but often subjective and unreliable
- Central pelvic pain usually due to processes involving bladder or uterus or BOTH adnexae
- Diffuse pain may occur with a bilateral process (PID) or with diffuse peritonitis (infection/haemorrhage)
- Sudden onset pain suggestive of → acute intrapelvic haemorrhage, cystic rupture, ovarian tosion
    - Gradual onset more in keeping with inflammation or obstruction
- The quality of pain is highly variable
- Information about LMP, pattern of menses and sexual activity are useful but cannot be used to exclude pregnancy (patients' lie all the time!)
- Patients who are undergoing fertility treatment are at increased risk for ectopic, heterotopic pregnancy, ovarian torsion, overian hyperstimulation syndrome
- Dysuria/frequency occurs in vulval/vaginal irritation but urgency typically signals a bladder problem

- Presence, quality and duration of associated vaginal bleeding should be ascertained
- N+V occurs more often with GI pathology, but can occur with ovarian torsion, ureteral colic, pregnancy
- Onset of pelvic pain shortly after uterine instrumentation increases the possibility of uterine perforation or infection
- Physical examination directed towards abdomen and pelvis
    - Cervical motion tenderness indicates reproductive tract inflammation, but irritation of adjacent structures can give rise to this finding
    - An open os DOES NOT DEFINITIVELY EXCLUDE AN ECTOPIC

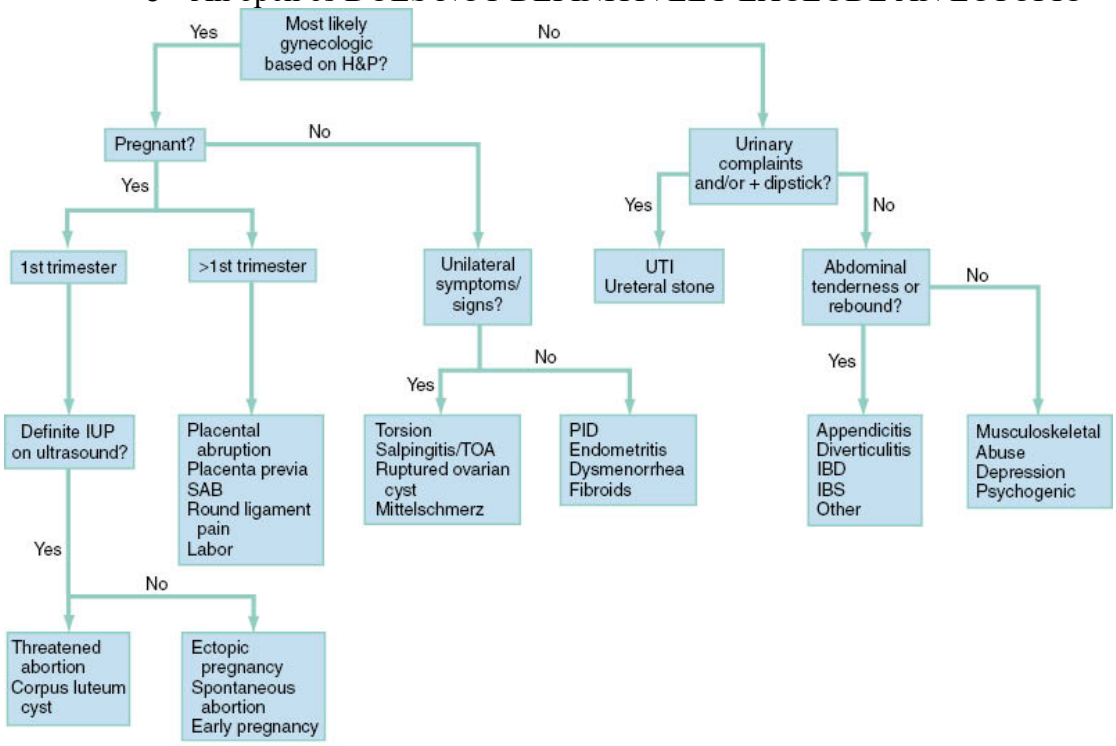

Table 26-1 Differentiation of Common or Potentially Catastrophic Causes of Pelvic Pain

CAUSATIVE DISORDER/CONDITION	PAIN HISTORY	ASSOCIATED SYMPTOMS	SUPPORTING HISTORY	PREVALENCE IN ED	PHYSICAL EXAMINATION	USEFUL TESTS	ATYPICAL OR ADDITIONAL ASPECTS
Ectopic pregnancy (critical if ruptured)	Classically severe, sharp, lateral pelvic pain, but severity, location, and quality highly variable	Vaginal bleeding	Missed period; history of previous ectopic pregnancy, infertility, tubal ligation, PID, or IUD use	Common	Classically unilateral adnexal tenderness, adnexal mass, and CMT	Pelvic US, quantitative β hCG, T&C progesterone?, laparoscopy	Cannot reliably exclude diagnosis based on history and physical; severe pain, hypotension, or peritonitis suggests rupture.
Ruptured corpus luteum cyst (emergent-critical with significant hemorrhage; otherwise, urgent)	Abrupt moderate to severe lateral pain	Light-headedness if bleeding is severe; rectal pain arises from fluid in cul-de-sac.		Uncommon	Hypotension and tachycardia if blood loss is significant; possible peritonitis	Pelvic US, CBC, T&C	Physical examination findings often do not correlate with volume of blood in pelvis at US.
Ovarian torsion (emergent)	Acute onset of moderate to severe lateral pain	Nausea and vomiting	History of ovarian mass	Uncommon	Adnexal mass and tenderness, possible peritonitis	US with Doppler flow studies, laparoscopy	Torsion can be intermittent.
Appendicitis (emergent)	Duration often <48 hr, generalized followed by localized RLQ	Low-grade fever, nausea, anorexia	Migration of pain to RLQ from center, abdominal pain before vomiting	Common	RLQ tenderness, possible peritonitis	US or CT in unclear cases	Early in course, tenderness may be minimal or poorly localized.
PID/TOA (TOA: emergent; PID: urgent-emergent)	Without TOA, pain usually bilateral. May present acutely within 48 hr, or subacutely with up to 3 wk of pain.	Fever, vaginal discharge	Vaginal discharge, history of PID, history of unprotected intercourse/ multiple partners	PID: common TOA: uncommon	Pus from cervical os, (+) CMT, adnexal tenderness. Peritonitis suggests severe PID or TOA.	CBC, ESR, CRP, pelvic US, laparoscopy, cervical cultures, cervical smear for WBCs	History and physical may be inaccurate for diagnosis, particularly in patients presenting subacutely.
UTI (urgent)	Pain with urination usually is not severe unless patient has flank pain from associated pyelonephritis.	Urinary urgency and frequency; fever and vomiting if patient has associated pyelonephritis	Recent urologic procedure, prior history of UTI	Common	Suprapubic tenderness, flank tenderness, and fever with pyelonephritis	Urinalysis, urine culture	WBC can be present in urine with PID and appendicitis.
Ureteral colic (urgent)	Acute onset, presents within hours. Pain is lateral, usually moderate to severe. Often radiates into the groin.	Nausea and vomiting	Prior history of stones	Common	Patient often appears uncomfortable, but physical examination can be otherwise unremarkable	Urinalysis: hematuria present in ~80% of cases; abdominal CT	If stone is at junction of ureter and bladder, can have localized pain that can mimic appendicitis or other acute pelvic pathology
Nonruptured ovarian cyst/tumor	Lateral ache, gradual onset	Often minimal	Prior history of similar pain	Common	Lateral pelvic tenderness, with or without a mass	Pelvic US, CBC	
Endometriosis	Unilateral or bilateral pelvic pain, often recurrent	Dysmenorrhea, dyspareunia	Prior history of same type of pain in association with menstrual cycle	Common	Unilateral or bilateral adnexal tenderness, occasionally pelvic mass present, peritoneal findings uncommon	Pelvic US, laparoscopy	Symptoms can mimic other types of pelvic pathology; laparoscopy often is needed for confirmation.

CBC, complete blood count; CMT, cervical motion tenderness; CRP, C-reactive protein; CT, computed tomography; ED, emergency department; ESR, erythrocyte sedimentation rate; β hCG, β human chorionic gonadotropin; IUD, intrauterine device; PID, pelvic inflammatory disease; RLQ, right lower quadrant; T&C, type and crossmatch; TOA, tubo-ovarian abscess; US, ultrasonography; UTI, urinary tract infection.