Acute abdomen

Any sudden, spontaneous, nontraumatic disorder whose chief manifestation is in the abdominal area and for which urgent operation may be necessary,there is frequently a progressive underlying intra-abdominal disorder .Early diagnosis and treatment avoid adverse outcome.

The approach to a patient with an acute abdomen

- must be orderly and thorough. The history and physical examination should suggest the probable causes and guide the choice of initial diagnostic studies.
  The clinician must then decide if :a- in-hospital observation is warranted, b- if additional tests are needed,c- if early operation is indicated, or d- if nonoperative treatment would be more suitable.

HISTORY

- **Abdominal Pain** Pain is the most common and predominant presenting feature of an acute abdomen. Careful consideration of the location, the mode of onset and progression, and the character of the pain will suggest a preliminary list of differential diagnoses.

Character of pain:

The nature ,severity and periodicity of pain provide useful clue to the underlying cause. Steady pain is most common .sharp superficial constant pain due to sever peritoneal irritation is typical of perforated ulcer or rupture appendix, ovarian cyst or ectopic pregnancy. The gripping progressing pain of small bowel obstruction is usually intermittent, vague, deep-seated, and crescendo at first but soon become sharper remitting and better localized. Pain is appropriately referred as colic if there are pain free intervals that reflect intermittent smooth muscle contraction

Mode of Onset and Progression of Pain

The mode of onset of pain reflects the nature and severity of the inciting process. Onset may be explosive (within seconds), rapidly progressive (within 1–2 hours), or gradual (over several hours). Unheralded, excruciating generalized pain suggests an intra-abdominal catastrophe such as a perforated viscus or rupture of an aneurysm, ectopic pregnancy, or abscess. Accompanying systemic signs (tachycardia, sweating, tachypnea, shock) soon supersede the abdominal disturbances and underscore the need for prompt resuscitation and laparotomy.

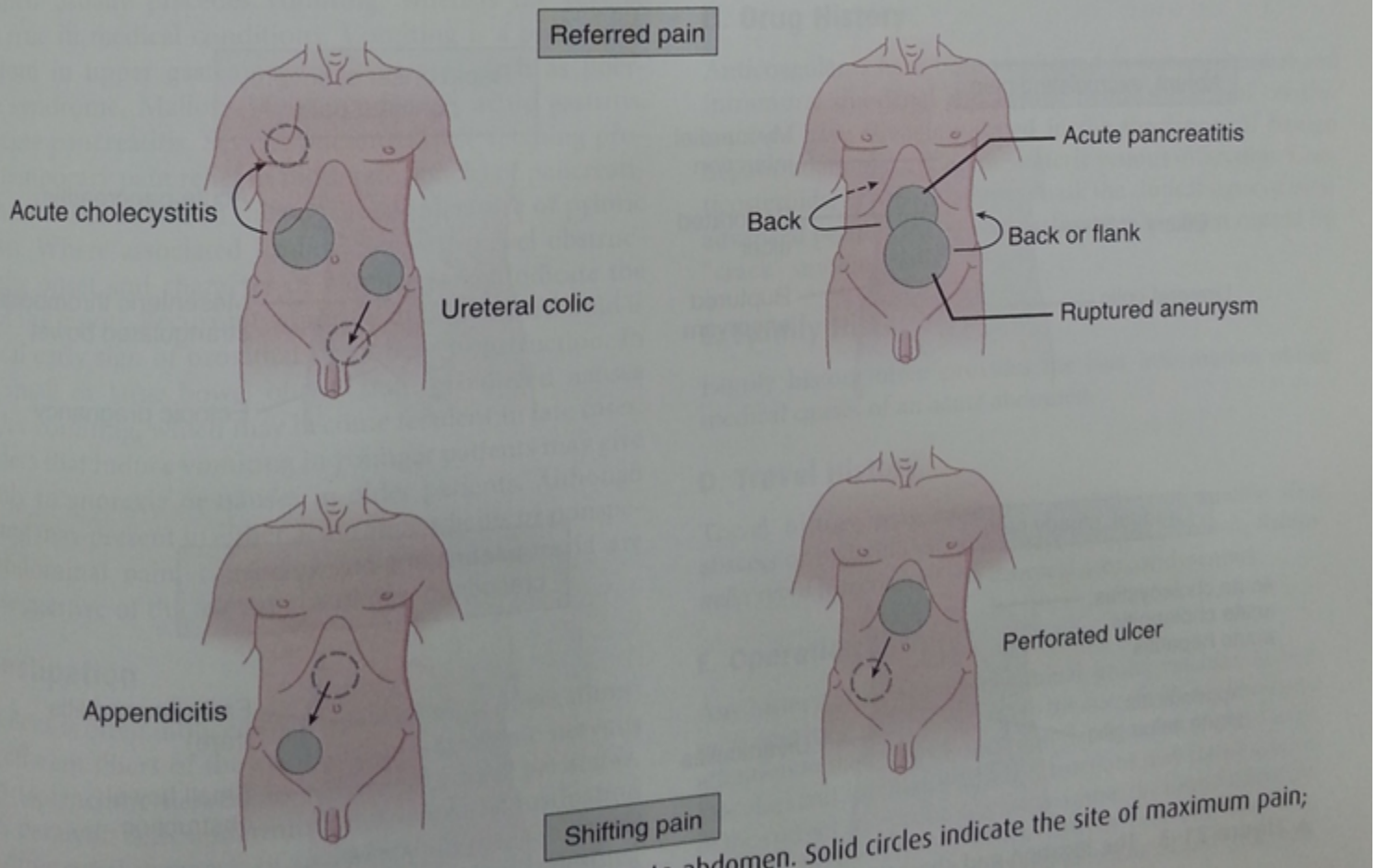
The location of the pain :

visceral pain is elicited by distention, by inflammation or ischemia stimulating the receptor neurons, or by direct involvement (e.g, malignant infiltration) of sensory nerves.

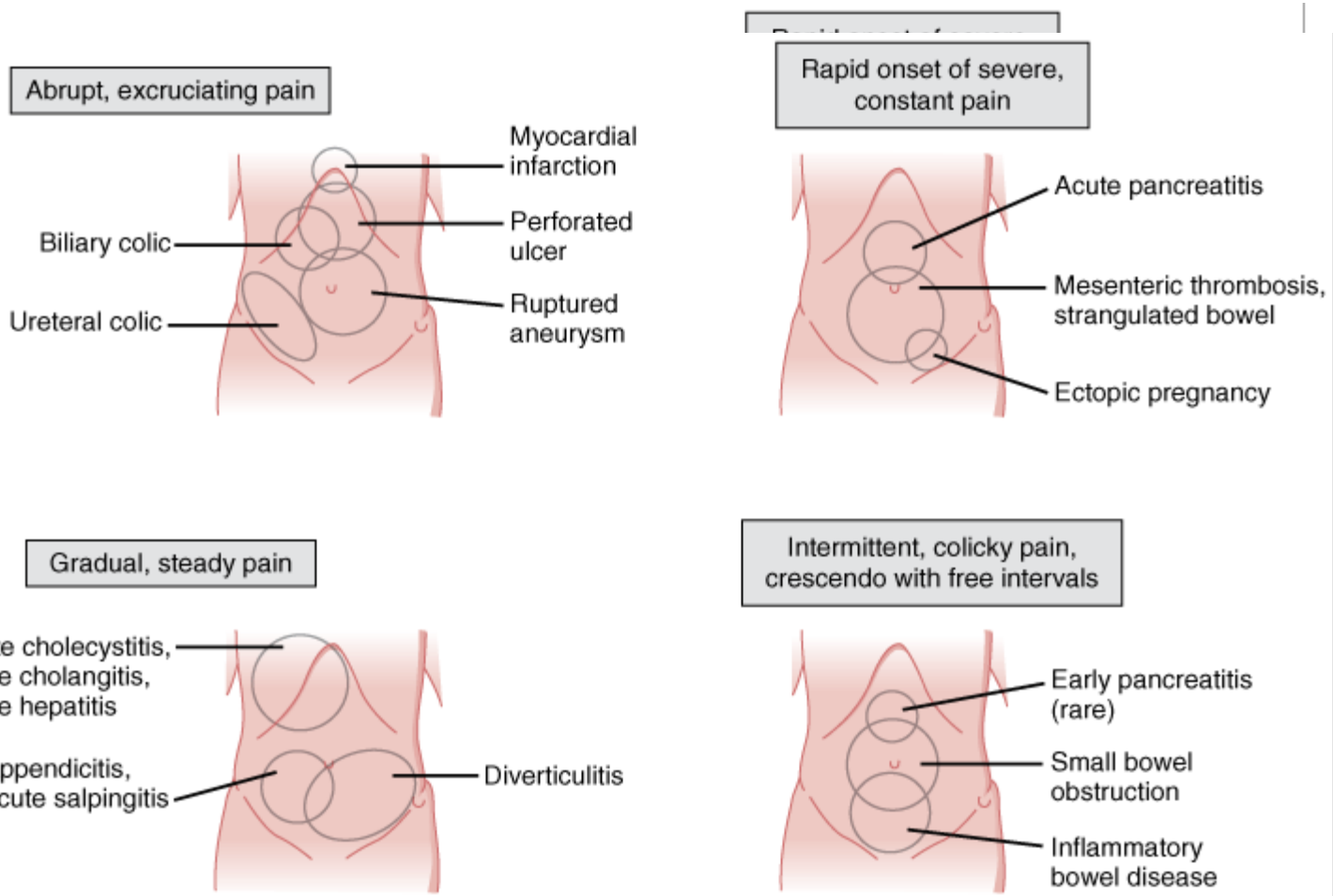
parietal pain is mediated by both C and A delta nerve fibers. Direct irritation of the somatically innervated parietal peritoneum (especially the anterior and upper parts) by pus, bile, urine, or gastrointestinal secretions leads to more precisely localized pain.

Referred pain

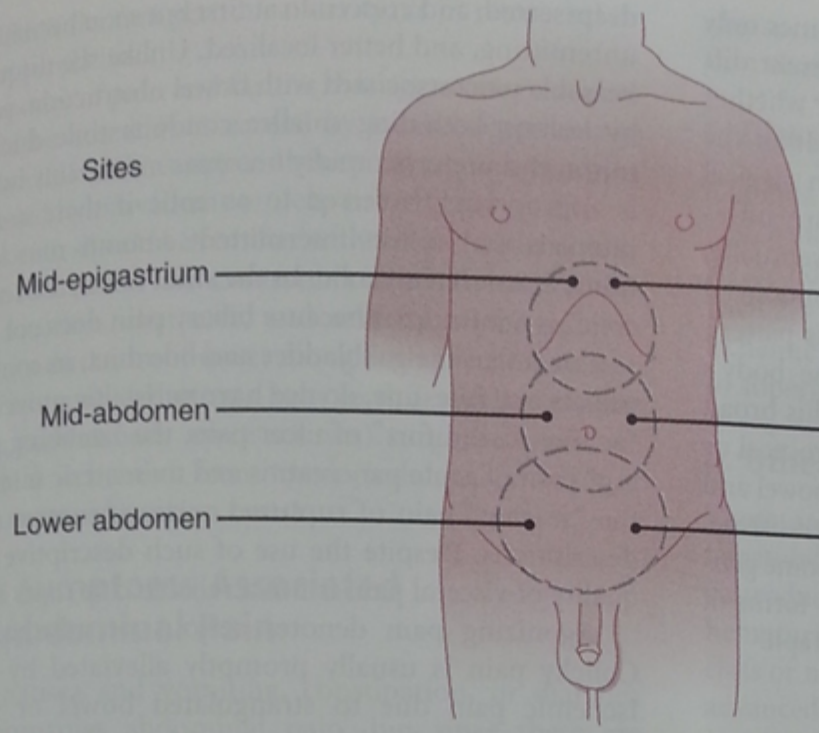
Abdominal pain may be referred or may shift to sites far removed from the primarily affected organs (Figure). **Referred pain** denotes noxious (usually cutaneous) sensations perceived at a site distant from that of a strong primary stimulus. For example, pain due to subdiaphragmatic irritation by air, peritoneal fluid, blood, or a mass lesion is referred to the shoulder via the C4-mediated (phrenic) nerve. Pain may also be referred to the shoulder from supradiaphragmatic lesions such as pleurisy or lower lobe pneumonia, especially in young patients.



▲ **Figure 21–2.** Referred pain and shifting pain in the acute abdomen. Solid circles indicate the site of maximum pain; dashed circles indicate sites of lesser pain.



Source: Gerard M. Doherty: *CURRENT Diagnosis & Treatment: Surgery, 13th Edition*: http://www.accessmedicine.com



▲ **Figure 21–1.** Visceral pain sites.

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Any of the above conditions may present in this manner