Summary

The acute abdomen is a sudden onset of severe abdominal pain, tenderness and muscular rigidity that requires medical or surgical management. There is a broad range of gynecologic and nongynecologic causes. The nongynecologic causes include gastrointestinal, hepatobiliary, vascular systems and genitourinary. There are also a number of medical conditions such as myocardial infarction and pneumonia which can cause symptoms which mimic the acute abdomen.

Gynecologic causes of acute abdominal pain can be further categorized into obstetric and non obstetric causes. Therefore, the first step in the evaluation of a premenopausal woman with acute abdominal pain is to establish if the patient is pregnant, with a β-HCG level. Common gynecologic causes of pelvic pain in non pregnant patients include large ovarian cysts, ruptured or hemorrhagic cysts, PID, ovarian or adnexal torsion, and malpositioned IUD.

Abdominal pain during pregnancy is a relatively common symptom. It may reflect anatomical and physiological changes of the pregnant state, such as the round ligament strain or may be due to an underlying pathological process such as...
placental abruption, abortion, threatened preterm labour, uterine rupture and other gynaecological Causes during pregnancy present with acute abdominal pain

The duration of acute abdominal pain may range from several hours to several days. Clinical evaluation and laboratory testing are essential to diagnose acute abdominal pain. US is widely used as the initial diagnostic imaging technique because of its availability, portability, and lack of ionizing radiation. US often can elucidate the cause of abdominal pain, particularly if pain is due to an obstetric and gynecologic abnormality

High frequency endovaginal transducers allow excellent anatomic depiction and pathologic characterization. The advent of TVUS has significantly improved our ability to evaluate the female pelvis. TVUS should be the starting point for married female pelvic examination because of the lack of radiation, wide availability, and excellent visualization of the female pelvic organs.

Ultrasound has become a routine means of investigation and some gynaecologists make it part of the clinical examination. Initially this should be abdominal with the bladder full in order not to miss an adnexal mass located high in the abdomen, then
transvaginal with the bladder empty for optimum assessment of the adnexa in standardised fashion

The superiority of TVUS over transabdominal US can be attributed to several factors:

1. The transabdominal approach requires bladder filling, which results in approximation of the anterior and posterior walls of the lower uterine segment, with the result that a normally situated placenta may falsely appear to be a previa.

2. Vaginal probes are closer to the region of interest, and typically of higher frequency, and therefore obtain higher resolution images than transabdominal probes.

3. The internal cervical os and the lower placental edge frequently cannot be imaged adequately by the transabdominal approach. This position is assumed rather than actually seen.

4. The fetal head may obscure views of the lower placental edge when using the transabdominal approach and a posterior placenta previa may not be adequately imaged

Color Doppler US allow assessment of blood vessels by observation of blood flow within the vasculature and can be used in assessing patients with venous and arterial pathology.