# Diagnosis

Diagnosis

The diagnostic approach can be classified into investigations done in the emergency setting and those done in the non emergency setting. The most common acute presentation of stone disease is - ‘ureteric colic’. Small 3- to 5-mm calculi are usually responsible for ureteric colic and commonly lodge at the UVJ. Non- - steroidal anti-inflammatory drugs and paracetamol are - e ff ective. Antispasmodic medications are not necessary to alleviate pain. Abdominal examination may reveal renal angle tenderness. Pelvic examination is especially important in women to exclude tubo-ovarian pathology such as an ectopic pregnancy or twisted ovarian cyst. Table 82.1 lists the - di ff erential diagnoses. /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF - /uni25CF Investigations include urinary examination, blood exam - ination and diagnostic imaging. The majority have micro - scopic haematuria and pyuria. Pyuria may be sterile pyuria or due to infection. An elevated leukocyte count suggests infection and may be an indication for starting antibiotics. Pregnancy should be ruled out. A radiograph of the kidneys, ureters and bladder and US - are good fir st-line tests. Non-contrast CT (NCCT) is the inves - tigation of choice for the diagnosis of stones. It allows for diag - nosis of both radio-opaque and radiolucent stones with the exception of indinavir stones. Most patients respond to medi - cation to alleviate pain. However, if the pain does not reduce with analgesics, or if the patient shows features of sepsis or urinary obstruction, emergency urinary decompression should be planned. Blood and urine should be cultured in patients suspected of sepsis , and empirical broad-spectrum antibiotics should be initiated. If the patient is clinically unstable, initial stabilisation in critical care may be warranted. Emergency uri - nary decompression may be done either with ureteric stenting - or with PCN. However, in the absence of infection, in a certain - select group of symptomatic but surgically fit patients, remov al of stones may be possible by ureteroscopy . Metabolic evaluation - The extent of metabolic evaluation depends on the risk asso - ciated with the recurrence of stone formation. Urinary examination is done to look at crystals and pH in the non-emergency setting. Urine culture is performed if definitive management is planned. Blood chemistry for serum - le vels of calcium, phosphorus and uric acid are done to rule out hypercalcaemia, hypophosphataemia and hyperuricaemia.

TABLE 82.1 Differential diagnoses for ureteric colic. Urinary tract Clot colic Anticoagulation therapy, haemophilia, vascular tumours Papillary necrosis Diabetes, NSAIDs, sickle cell disease Other organs Acute appendicitis Ectopic pregnancy Ovarian torsion Acute intestinal obstruction Abdominal aortic aneurysm Malingering NSAID, non-steroidal anti-in /f_l ammatory drug.

risk patients.

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Revision #1
Created 2025-12-31 15:29:45 UTC by Omar Ayman
Updated 2025-12-31 15:29:45 UTC by Omar Ayman