A 48-year-old man presents to your Emergency Department with 24 hours of colicky flank pain. You suspect renal colic.

1. List 4 reassuring features on clinical assessment that would dissuade you from performing a CTKUB on this patient. (4 marks)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Complete the following table with regards to choice of imaging modality in renal colic. (4 marks)

|  |  |
| --- | --- |
| **Imaging Modality** | **Cons** |
| Renal Ultrasound |  |
|  |  |
| CTKUB |  |
|  |  |

A CTKUB is performed. An axial image from the CTKUB is provided in the Props booklet.

1. List 4 abnormalities visible on this CTKUB image. (4 marks)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

A 48-year-old man presents to your Emergency Department with 24 hours of colicky flank pain. You suspect renal colic.

1. List 4 reassuring features on clinical assessment that would dissuade you from performing a CTKUB on this patient. (4 marks)

* Age < 50
* Known history of kidney stones
* No fever (accept other signs of sepsis: hypotension, persistent tachycardia)
* Pain controlled with oral analgesia
* Tolerating oral intake
* No signs of infection on urinalysis

Not accepting: “normal vital signs”, “urinating well”, “no peritonism” or other features unrelated to renal colic presentation (eg “Murphy’s sign negative”, “non-tender at McBurney’s point”)

1. Complete the following table with regards to choice of imaging modality in renal colic. (4 marks)

|  |  |
| --- | --- |
| **Imaging Modality** | **Cons** |
| Renal Ultrasound | 1. Lower sensitivity to CTKUB (45% versus 99%) |
|  | 1. Size of stone may not be able to be measured |
|  | (May not be available 24 hours) |
|  | (will accept: Less sensitive in excluding alternate intra-abdo pathology) |
| CTKUB | 1. Exposure to radiation |
|  | 1. Higher cost that ultrasound |
|  | (Limited use in pregnant patient) |
|  | (will accept: not all types of stone visible on CTKUB) |
|  | (will not accept: “does not give measure of renal function”) |

A CTKUB is performed. An axial image from the CTKUB is provided in the Props booklet.

1. List 4 abnormalities visible on this CTKUB image. (4 marks)

* Right perinephric stranding
* Right ureteric dilatation/hydroureter
* Right renal pelvic dilatation/hydronephrosis
* Simple renal cyst
* Aortic calcification

References:

* Image: CTKUB: Radiopaedia: Case courtesy of A.Prof Frank Gaillard, Radiopaedia.org, rID: 16698
* Cameron’s Textbook of Adult Emergency Medicine: Genitourinary Emergencies: Renal Colic
* Rosen’s Emergency Medicine: Concepts and Clinical Practice: Selected Urological Disorders: Renal Calculi
* Choosing Wisely Australia/Australasian College for Emergency Medicine: Tests, treatments and procedures clinicians and consumers should question

