Name Iqrar Hassan

ID 14706

QNO: 01

Ans: Retrograde pyelography is a method of imaging the upper urinary collecting system. After IVU and CTU were developed it is been rarely performed as a primary study, but it still has a few potential indication.

No visualization of ureteral segment on IVU and CTU.

- If there is a still clinical concerns for evaluating the collection system after an IVU or CTU, a retrograd pyelogram may be able to better image the segment of ureters.

protocols:

(1) retract the foreskin and clean the tip of penis

(2) inject the small amount of topical local anesthesia into urethra with syringe.

(3) the patient position will be oblique

(4) place the tip of the metallic adapter int urethral Orifice and attach the contrast loaded Syring to it.

(5) inject the contrast and image as Soon as a major part of contrast has been injected : taking Spot images when appropriate.

Ideal image demonstrat the entire Lenght of Urethera with contrast biganing to fill the bladder.

Q NO: 03
ANS:

Plain radiograph are limited utility to help to detect abnormalities in biliary System:
Frequently calculi is not visualized because few are radio opaque.

Ultrasonography:

is the least expansive, Safest and most Sensitive technique for visualizing the billiary System.

in this the visualization of the pancreas kidney and blood vessels is also possible

Computed Tomography (CT)

Traditional CT scanning is usually considered more accurate than US for Helping and determine the specific cause of obstruction. In addition of intravenous contrast helps differentiat and intravenous contrast help differentiat and define vascular structure and bailiary tract.

Spiral CT Scane.

Spiral CT Scanning improve billiary tract imaging by providing several overlaping imag in shorted time then traditional CT Scanning and by improving resolution by reducing the presence of respiratory artifact.

→ Magnatic rasonance Cholangiopancreato-graphy. (MRCP)

MRCP is noninvasive way to visualize the hepatobilliary tree. It take advantage of the fact that fluid. is hypesintence T2 weight imeges. the surrouded structure do not enhance and can be supressed during image analysis.

Procedures:

Endoscopic Retrograde Cholangeopancreatography (ERCP)

- ERCP is is an out patien procedure that combine endoscopic and radiologic modalities to visualised both billiary and pancreatic duct system.
- ERCP is limited capacity to image the billiary tree proximal to the sit of obstruction.

Percutaneous transhepatic Cholangiogram (PTC)

- PTC is preform by a radiologist using Flouroscopic guidence. In Iodine based contrast is injected into billiary system and flow thrug the duct. The obstruction can be identified identified on the flouroscopic monitor.

- Endoscopic Ultrasounds: EUS

EUS combin Endoscopy and US to provid remarkkably detailed imag of billiary tree.

Q No: 5

Ans: Arthrography is a type of medical imaging used in evaluation and diagnosis of joint condition and unexplained pain. Arthrography may be indirect where contrast material is injected to blood stream, or direct when contrast injected to joint.

CT, MRI or Flouroscopy - a form of real-time x-rays may be perform after arthrography to image the joint.

MRI and Ultrasound are powerfull tools for diagnosis of tendon and ligament. The imaging appearance are related to the structure of normal tendons and the change that occurs the disease.

METHOD:-
- single contrast (contrast)
- Double contrast (AR)

INDICATION:
- Joint capsule torn
- Joint cavity
- Synovial membrane
- articular cartilage

CONTRA INDICATION:
- active arthritis
- Joint infection
- Bleeding problem
- previous hypersensitivity

COMPLICATIONS:
- Allergic reaction.
- synovitis
- pain capsular rupture
- trauma to adjacent structure.

★ Qno2.

Ans: Conginatal abnormalities of the Kidney and urinary tract (CAKUT) include a wide range of abnormalities ranging from asymptomatic ectopic Kidney to life threating to renal agenesis.

This abnormalities is one of the leading course of end stay renal disease.

★ INTRAVENOUS PYELOGRAPHY (IVP)

- An intravenous plylography also called intravenous urography OR excretary urography

Exam is a radiological procedure use to vasualize abnormalities of Kidney.

★ INDICATION:

- check for normal function of Kidney.
- check for anotomical varient.
- check the course of urater
- detect and localize a urethric abstruction.

★ CONTRA INDICATION

- contrast allergy
- Hapatorenal syndrome
- Thyrotoxicosis
- Raised serum creatinine

★ CONTRAST MEDIA

- infant and small children and the alderly.
- Those with renal and cardiac failure.
- poorly hydrated patient.

★ HOCM / LOCM 370 are acceptable but the following high risk group should rescived LOCM.

- IDeal Dose 50ml
- pediatric dose 1ml/kg/-

★ TECNIQUE

- The median anticubital vein is preffered injection site /b/c you is restarted in safilic vein as it puts the cleary pectral pesture.

* COMPLICATION :-
— Due to contrast media
— Due to technique : incorrectly applied abdominal compression may produced intolerable discomfort hypotention.

Q NO 4:

Ans: Imaging play a key role in diagnostic evaluation of woman for infertility. The pelvic cause of female infertility are varried and range from tube abnormilities to uterine cervical and varian disorder and most cases the imaging work up begain with histerosalpingography to evaluate fallopia tube potency. Uterine filling defect and contour abnormility may be discovered in histerosulpingography but typically require further characterization with hysterographic or pelvic ultrasongraphy or pelvic magnatic resonance imaging hysterographic

★ among uterine syechiae endometrial polypse and submucosal leiomyomas pulse US and MR imaging help further differentiate among uterine leiomyomas adenomyosis and varias duct anomalies.

with MR imaging being the most sensitive modality for detecting endometriosis, the presence for cervical disease may be inferred initially on the basis of difficulty on failure of cervical cannulation at hysterosalpingography.