

Date: \_\_\_\_\_

1

Name

Axizullah

ID No

14705

Instructor Name

Mam Mahreen

Paper

CRP and CP

Program

BS (Rad)

Date

25-06-2020

(a)

## Q No 1

Ans

When we is not visualized the ureteral segment in IIVU and CTU procedure.

Atleast we select the Retrograde pyeloureterography  
RPUG

### Retrograde pyeloureterography:

⇒ the Retrograde we also use for the ureteral segment.

⇒ the contrast inject through catheter in this procedure.

But in normal condition

⇒ The kidney produce urine and then travels to bladder through ureter, and also then stored in bladder.

⇒ If there is some problem in collecting system.

Notes

## Protocol:

- ⇒ Retrograde pyeloureterography is the abnormalities occur in collecting system, pelvicalyceal, and ureteral segment.
- ⇒ it shows better image
- ⇒ Stent Placement.
- ⇒ pelvicalyceal abnormalities.

## Contraindication:

- ⇒ The retrograde pyeloureterography is ~~not~~ contraindicated in this condition.
- ⇒ When Patient have pregnant we must give protocol.
- ⇒ and other the patient is allergic for contrast.
- ⇒ and the urinary infection occur in body.
- ⇒ it is Fluoroscopy procedure.

(4)

## Technique:

When we give ~~anest~~ anesthesia to the patient.

⇒ the patient lies in dorsal lithotomy position and give proper positioning to the procedure.

⇒ they must be proper position the physician performed cystoscopy, and locate the ureteral orifices

⇒ the physician enters the catheter to the ureter and then take image.

⇒ ~~when~~ at least the physician ~~to~~ enters the catheter to the ureter into place to the original site.

⇒ once placement is confirmed

⇒ ~~the~~ after the placement the physician injected the contrast media <sup>noted</sup> through

Catheter to ureter:

Contrast 5-8 mL

⇒ and then take images on fluoroscopy.

⇒ it is used for ureter and collecting system abnormalities

⇒ if the obstruction or blockage occurs in pelviureteric junction.

⇒ the contrast medium is injected into the pelvis

⇒ the film shows more prominent ~~prominent~~ prominent exampind.

⇒ the catheter is ~~to~~ withdrawn, first to 10 cm below.

⇒ Antibiotic must be used.

⇒ prevention for infection

⇒ Mucosal damage of ureter

⇒ and pelvic perforation



(6)

Q NO 3

ANS

When biliary obstruction occurs in body the percutaneous Transhepatic Cholangiography,

### Percutaneous Transhepatic Cholangiography: Protocol:

⇒ it is radiographic technique.

⇒ it visualize the extrahepatic biliary obstruction and also used for biliary stress.

⇒ When extrahepatic biliary obstruction confirmed and then give this procedure is the best for diagnosis.

⇒ prior therapeutic intervention.

## ⇒ Contraindication:

Contraindication is also  
include in protocol.

⇒ When patient start  
more bleeding at  
that time the platelets  
concentration is too much  
low.

⇒ it is contraindication.

⇒ in this condition  
is not ~~to~~ diagnose  
this procedure.

⇒ Biliary tree sepsis.

⇒ and are other  
critical condition.

⇒ Hydrated disease.

⇒ No use more  
contrast media.

⇒ when patient allergic  
to contrast media  
when the doctor  
prescribed the allergic  
medication to the patient

⇒ these medicines take  
before ~~10~~ 10-12 hr  
diagnosis time.

(8)

## Preparation:

- ⇒ Hemoglobin test must be necessary it must be checked
- ⇒ the antibiotic must be give before the one/day the diagnosis time and then three/3 days regular after the diagnosis time.
- ⇒ Pre-medication

## Technique:

- ⇒ ~~at~~ supine position.
- ⇒ ~~first~~ first metal marker is placed or attached on the skin on Right mid axillary line
- ⇒ the 2nd metal marker must be placed on the xiphisternum.
- ⇒ Deeper tissue and liver capsule anesthetized at the site of first metal marker.



- ⇒ once the needle is injected in bile duct
- ⇒ a wire is introduced
- ⇒ After wire is passed to secure position in the biliary tree.
- ⇒ the needle is removed.
- ⇒ Furthermore interventions
- ⇒ A large wire is needed.
- ⇒ This ~~large wire~~ large wire can be passed through two components and then be removed to accept a large wire
- ⇒ Contrast medium is injected to the Duct System while obstruction are present
- ⇒ the needle is withdrawn more carefully.
- ⇒ on obstructed duct system.

(10)

Q 402

Ans **intravenous pyelography.**

- ⇒ it is also called as intravenous urography.
- ⇒ it is visualise the abnormalities of kidney and urinary system.

**Indication:**

- ⇒ Congenital anomalies.  
(horse shoe shape kidney).
- ⇒ Calculi ureters
- ⇒ Uretic obstruction (calculi) must be necessary.
- ⇒ and other direct disease.

**Contra indication:**

Creatinine test level increased in this time it would be not performed the procedure.

- ⇒ Contrast allergic patient,
- ⇒ ~~pancreatic~~ pancreatic and disease.

## Contrast Medium:

Contrast media both Iocim, Iocm are same for the patient,

Contrast = 370

When patient has high risk it should be give Iocm.

OS Such like

renal failure and

cardiac failure patient

⇒ Diabetes ~~and~~

⇒ Sickle-cell anemia, etc

⇒ Adult dose, 50ml

⇒ ~~per~~ paediatric dose  
1ml per kg.

## Patient preparation:

- ⇒ patient should give ~~the~~ ambulant 2h prior for examination to reduce bowel gas.



⇒ patient should not eat  
any thing before the  
5 hrs the examination time,  
it should effect on  
image quality; ...

⇒ when contrast allergic  
patient it should be  
give tablet 32 gm orally  
before 12 hrs the  
examination.  
and then give 60cm,

## Preliminary Film:

patient lies supine  
position. AP of  
the abdomen in respiration.

⇒ the area of  
interest is including  
area is symphysis pubis  
and to the iliac crest

⇒ the x-ray beam  
centered at the midline  
of the patient.

⇒ kidney, liver and  
other organ must  
be same with some place



## Technique:

⇒ The contrast injected into median antecubital vein.

⇒ The contrast flow slowly and then reaches to cephalic vein and the ~~left~~ cephalopectoral vein.

⇒ The 19.G needle is new advanced needle it ~~is~~ reduce risk.

⇒ When upper arm feels pain due to stasis of contrast media, the arm should be abducted.

## Film:

### ① Immediate film

⇒ When we give contrast media.

⇒ AP of the renal area.

⇒ it take image about 10 to 12 second.

⇒ it shows the nephrogram.

② 5 min film

AP of the renal areas.

⇒ the film is taken after 5 minutes

⇒ if the infection of contrast media

⇒ there is poor intral opacification

③ 15 min film

⇒ AP of renal areas.

⇒ after 15 minutes the image slightly prominent.

⇒ Compression is released the pelvic/renal system have show.

④ Release film:

AP Supine abdomen the film taken the whole urinary system.

⑤ After micturition film:

Clinical finding and radiological finding

on the film

⇒ The film covers  
Full length abdomen  
and also Symphysis pubis.

## Complication

- ⇒ Contrast medium due to
- ⇒ incorrectly applied abdominal  
compression may produce  
discomfort of hypotension

Q No 4

Ans

Hysterosalpingography:

⇒ ~~This~~ this procedure  
is also used in  
female infertility disease

⇒ it is also  
called as uterosalpingo-  
graphy.

(16)

⇒ it is hysteroscopic procedure used in ~~at~~ uterus and fallopian tube.

⇒ = the word Hystero mean "uterus" and Salpingo mean "fallopian tube" and graphy mean "draw".

⇒ when abnormalities occur in uterus and fallopian tubes. in that condition this procedure used.

## INDICATION:

⇒ Fallopian tube patency.

⇒ abnormalities of uterus.

⇒ Female infertility.

⇒ Misconception occur.

## Contraindication:

When patient is contrast allergic.

⇒ other ~~dise~~ pelvic disease

Notes



- ⇒ When women are pregnant,
- ⇒ Abortion or post menstruation. The applies contrast medium because it is highly risk for the patient.

## Contrast Medium.

HOCM or LOCM 300 Volume  
10-20ml.

- ⇒ LOCM has no advantage
- ⇒ it is side effect.
- ⇒ Oily contrast medium is long time for used.

## PPI Equipment.

- ⇒ Vaginal Speculum is used
- ⇒ Fluoroscopy
- ⇒ Uterine Cannula
- ⇒ paediatric Foley catheter

(18)

## patient preparation:

⇒ Zealous patient need premedication

⇒ the patient should abstain from intercourse booking the ~~at~~ appointment the time of examination

⇒ the examination can be booked the 4th to 10 days in patient with regular 28 day cycle.

## Preliminary film:

⇒ pelvic cavity PA film  
~~not take~~

## Technique:

⇒ The patient lies supine position.

⇒ abducted legs, knee flexed, and heels together

⇒ the physician insert the vaginal speculum

⇒ the physician clean the vagina with chlorhexidine

⇒ the cervix is open with the help of vulsellum and insert cannula inside the cervix.

⇒ and also Foley catheter be used.

⇒ After that it must be careful the air bubble escape from the syringe and this cause confusion.

⇒ Contrast media slowly injected under fluoroscopic control.

⇒ Spasm of the uterine cornu may be relieved w<sup>th</sup> glucagon.



(20)

⇒ increases pain of smooth muscle contraction

## Film:

⇒ As the tubes begin fill  
⇒ All instrument has removed when peritoneal spill occurred.

## Complication:

- ⇒ Sometime infection occurs.
- ⇒ Abortion, which that patient is not have pregnant
- ⇒ Sometime contrast medium.
- ⇒ Nausea, vomiting.
- ⇒ Vaginal pain.
- ⇒ Bleeding.
- ⇒ Sometime during insertion of cannula.



# Q No 5

## Ans: Arthrography:

⇒ it is type of medical imaging system used in diagnosis of joint ligament and Tendon condition

⇒ so it is ~~to~~ feel pain

### INDICATION:

- ⇒ Tendon abnormalities
- ⇒ Ligament abnormalities
- ⇒ Joint ~~is~~ dislocation
- ⇒ Joint Capsulitis ~~is~~ Torn
- ⇒ Synovial membrane
- ⇒ two bone with loosely attached.

## Contraindication:

- ⇒ Joint bleeding problem
- ⇒ Active arthritic disease
- ⇒ Very badly joint infection
- ⇒ Sensitive or allergic to contrast media

## Contrast Media:

- ⇒ Single Contrast
- ⇒ Double Contrast

⇒ Indirect When contrast material directly injected to the bloodstream

⇒ it is indirect method

⇒ Direct

When contrast media directly injected to the joint

⇒ it is Direct Method

## Equipment:

- ⇒ Fluoroscopy

## Patient preparation:

- ⇒ Remove Jewellery.
- ⇒ Remove metallic objects.
- ⇒ The patient to tell your doctor that you are pregnant or other recently disease.
- ⇒ Contrast allergic medication.

## Preliminary film:

- ⇒ Area of interest must be include.
- ⇒ AP and lateral of joint.
- ⇒ Radial and ulnar deviation in wrist joint.
- ⇒ Routine plain film.
- ⇒ inversion and eversion in ankle.
- ⇒ circumflexion and plantar flexion of ankle.

## After care

- ⇒ Prevention for swelling maximum or minimum two days.



(24)

⇒ joint pain may occur

## Technique:

Common uses the procedure for

⇒ Shoulder

⇒ Elbow

⇒ Hip

⇒ Knee

⇒ Wrist

⇒ Ankle

## Knee Joint Arthroscopy

⇒ First the patient

lying supine position,

⇒ the skin and soft

tissue of knee joint

and also patella are

anesthetized posteriorly.

⇒

the needle is used

inserted into joint

space anteriorly

⇒ so that the tips

of needles come Notes to lie

against posteriorly

⇒ The contrast is injected to the joint,

⇒ the contrast volume is 4ml and is  
or 4ml air is double  
contrast.

⇒ and then the needle is withdrawn carefully,

⇒ and the is  
limbs is exercised.

## Complication:

⇒ Contrast Sensitivity.

⇒ Joint Infection pain

⇒ Turns to the  
adj. adjacent structures,  
nerves, and vessels.

⇒ Inflammation

Thank you