



BRAINWARE UNIVERSITY

Term End Examination 2020 - 21

Programme – Bachelor of Science in Medical Radiology & Imaging Technology

Course Name – Contrast & Special Radiography procedures

Course Code - BMRIT305

Semester / Year - Semester III

Time allotted : 75 Minutes

Full Marks : 60

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

1. (Answer any Sixty)

(i) Which of the following is not a contrast reaction?

- | | |
|--------------|----------------|
| a) Urticaria | b) Anaphylaxis |
| c) Nausea | d) Fits |

(ii) All are dose dependent side effects except:

- | | |
|-------------------|------------------------|
| a) Metallic taste | b) Nausea and vomiting |
| c) Flushing | d) Urticarial |

(iii) Which of the following is not used for treatment of pulmonary edema?

- | | |
|---------------------|------------------------|
| a) Oxygen mask | b) Methyl prednisolone |
| c) Chlorpheniramine | d) Hydrocortisone |

(iv) Which is the most common oral contrast agent used:

- | | |
|-------------------|-----------------|
| a) Barium sulfate | b) Gastrografin |
| c) Gadolinium | d) All of these |

(v) Which of the following contrast agent are non-ionic dimmers?

- | | |
|--------------|--------------|
| a) Iopromide | b) Iopamidol |
| c) Ioxaglate | d) Iotrol |

(vi) Triiodinated benzene ring with two organic side chains and a carboxyl group is present in:

- a) High osmolar media
- b) Low osmolar media
- c) Both High osmolar media & Low osmolar media
- d) None of these

(vii) Spine-spine relaxation effect is produced by:

- a) Positive contrast agents
- b) Negative contrast agents
- c) Both Positive contrast agents & Negative contrast agents
- d) None of these

(viii) Advance of oral contrast agents include:

- a) Adequate distension of bowel by the oral contrast agents helps in easy detection of bowel pathology
- b) Iso-osmotic contrast agents without orally administered
- c) For bowel wall enhancement iso-osmotic contrast agents can be used with positive IV contrast
- d) All of these

(ix) Drug used for mild anaphylactic reaction is:

- a) Chlorpheniramine
- b) Adrenalin
- c) Gastrografin
- d) None of these

(x) The dose of iodinated contrast used in children is

- a) 2 ml/kg
- b) 20 ml/kg
- c) 200 ml/kg
- d) 100 ml/kg

(xi) The amount of oral contrast medium used in CT abdomen is

- a) 5 ml
- b) 100 ml
- c) 10 ml
- d) 1000 ml

(xii) Idiosyncratic contrast medium reactions arte

- a) Anaphylactoid
- b) Anyphylaxis
- c) Delayed hypersensitivity
- d) Immune complex type

(xiii) Serum creatinine should be measured how long before the contrast examination

- a) 1 month before
- b) 1 year before
- c) 1 week before
- d) 6 months before

(xiv) In sickle cell anaemia following contrast material should be used

- a) Low osmolality contrast media
- b) High osmolality contrast media
- c) Isosmolar
- d) Hyposmolar

(xv) Paramagnetic agents cause alteration in

- a) Decrease T1 relaxation
- b) Decrease T2 relaxation
- c) Increase T2 relaxation
- d) Increase T1 relaxation

(xvi) Breast feeding after contrast administration should be avoided for

- a) 48 hrs
- b) 24 hrs
- c) 1 week
- d) Not required

(xvii) Indication for using water soluble contrast media is:

- a) Suspected perforation
- b) Ileocaecal tuberculosis
- c) Constipation
- d) Gastroesophagel reflux disease

(xviii) Glucagon is contraindicated in all, except:

- a) Insulinoma
- b) Glucagonoma
- c) Phacochromocytoma
- d) Glaucoma

(xix) Amount and concentration of barium sulphate used for contrast swallow examination is:

- a) 200-250% 100 ml
- b) 100% 300 ml

c) 100% 50 ml

d) 60% 1500 ml

(xx) Contrast enema in neonatal bowel obstruction uses:

a) Ionic contrast medium

b) Non-ionic contrast medium

c) Barium

d) Air

(xxi) In barium meal sequence antrum and body of stomach are visualized in the position:

a) Supine

b) Left anterior oblique

c) Right posterior oblique

d) Left lateral

(xxii) For imaging duodenal loop in a barium examination following position is preferred:

a) Supine

b) Prone

c) Left lateral

d) Right lateral

(xxiii) Radiographic examination of salivary glands and its ducts by means of contrast medium is termed as

a) Ductography

b) Sialography

c) Sinography

d) Cholelithiasis

(xxiv) Intrahepatic ducts are dilated if their diameter is more than _____ of the accompanying portal vein branch

a) 50

b) 60

c) 40

d) 30

(xxv) Upper limit for pancreatic duct measurement is

a) 8 mm

b) 3 mm

c) 6 mm

d) 10 mm

(xxvi) After how much of a bolus injection, arterial phase begins for CT

abdomen

- a) 50 s
- b) 100 s
- c) 25 s
- d) 7 s

(xxvii) Following is a cholangiographic agent

- a) Meglumine
- b) Urografin
- c) Barium
- d) Iopamidol

(xxviii) Normal liver shows

- a) Increased T1 signal
- b) Increased T2 signal
- c) Decreased T1 signal
- d) Decreased T2 signal

(xxix) MRCP is a non- invasive technique that uses heavily

- a) T1 weighted
- b) PD weighted
- c) T2 weighted
- d) FIESTA

(xxx) Following is the indication for biphasic scanning of liver

- a) Cirrhosis
- b) Jaundice
- c) Liver tumors
- d) Cholelithiasis

(xxxi) How many days after operation that T-tube cholangiography done?

- a) 10-12 days
- b) 12-15 days
- c) 8 – 10 days
- d) 15-18 days

(xxxii) Pitfalls of T-tube cholangiography are

- a) Free drainage of contrast media into the duodenum
- b) Differentiate between air bubble and calculi
- c) Taking the oblique/ lateral views
- d) Rapid injection of contrast media resulting in spasm of sphincter of Oddi

(xxxiii) Chiba needle used in PTC is of

- a) 22/23 G
- b) 23/24 G
- c) 21/22 G
- d) 20/21 G

(xxxiv) What is the length of chiba needle?

- a) 15-20 cm
- b) 20-25 cm
- c) 25-30 cm
- d) 30-35 cm

(xxxv) A patient is send to you by a clinical for IVP, but the patient has history of allergic reaction for contrast previously, what will be your action?

- a) IVP could not be done for such patient
- b) No precaution needed
- c) Can be done with low osmolar contrast medium (LOCM)
- d) Can be done under steroid cover and using low osmolar contrast media

(xxxvi) What is the role of preliminary oblique view in IVP?

- a) Should be done routinely
- b) Should be done in suspected cases of renal cell carcinoma
- c) Should be done in cases of hematuria
- d) Should be done in suspected cases of renal calculi but no calculus is seen in preliminary KUB film

(xxxvii) Regarding injection of contrast during IVU which of the following is correct?

- a) Should be given slowly
- b) Should be given as rapid bolus
- c) Can be given by either way
- d) None of these

(xxxviii) Compression is contraindicated in all of the following conditions except

- a) Following recent surgery
- b) Following recent trauma
- c) In cases with renal calculus
- d) In cases with abdominal masses

(xxxix) Which is the best view for UV junction calculus?

- a) Plain film
- b) Full film with compression

c) Post release film

d) Post micturition film

(xl) What is the role of prone film in IVU?

a) To look for residual urine

b) To look for ureter

c) To look for pelvi ureteric junction of lower ureter

d) To look for urinary bladder

(xli) In cases where feces filled transverse colon obscures renal area, how will you visualize the kidney?

a) By taking delayed films

b) By taking film with 30° caudal angulation

c) By taking lateral films

d) By taking films with 10° caudal angulation

(xlii) Which is the best position to demonstrate the ureterocele?

a) Supine position

b) Prone position

c) Dead lateral view

d) 30° oblique position

(xliii) What is the major indication of retrograde pyelography?

a) When patient is having urinary tract infection

b) When ureterocele is suspected

c) To demonstrate ureteric calculus

d) To demonstrate lower limit of ureteric obstruction

(xliv) Lower ureter is best seen in which of the following position?

a) Anterior oblique position of that side

b) Anterior oblique position of opposite side

c) Posterior oblique position of that side

d) Posterior oblique position of opposite side

(xlv) In IVU, what is the name of radiograph which is taken after 5 minutes of injection of contrast media?

- a) Nephrogram
- c) Pyelogram

- b) Ureterogram
- d) Full film

(xlvi) Which of the following is the relative contra indication for HSG.

- a) Pregnancy
- c) Active menstruation
- b) Pelvic inflammatory
- d) Severe iodine allergy

(xlvii) What is the advantage of oil based contrasts used in HSG?

- a) No risk of embolization
- c) Increased post-test fertility
- b) No risk of peritoneal granulomatous
- d) Less painful

(xlviii) HSG is done for

- a) Uterus
- c) Fallopian tubes
- b) Uterine cavity
- d) All of these

(xlix) What is corpus luteum

- a) It secretes progesterone and estradiol
- c) It secretes only progesterone
- b) It secretes only estradiol
- d) It secretes only luteal hormone

(l) Fluoroscopy imaging of the ileocecal valve is generally parts of an

- a) Esophagogram
- c) Small bowel series
- b) Upper GI series
- d) Barium enema

(li) What is the name of the flexure that lies between transverse colon and the ascending colon?

- a) Splenic
- c) Ileocecal
- b) Hepatic
- d) Sigmoid

(lii) For double contrast study, contrast media should have

- a) High density, high viscosity 200-250%
- c) Low density, high viscosity 200-250%
- b) High density, low viscosity 100-200%
- d) High density, low viscosity 200-250%

(liii) In which modality 'no radiations' are involved?

- a) Virtual colonoscopy
- b) CT colonography
- c) MR colonography
- d) Barium enema

(liv) MCU is indicated to

- a) Assess the urethrae for any abnormality? b) Stress incontinence
Outflow obstruction
- c) To demonstrate vesico- ureteric reflux
- d) All of these

(lv) Chiba needle used in PTC is of

- a) 22/23 G
- b) 23/24 G
- c) 21/22 G
- d) 20/21 G

(lvi) RGU is contraindicated in

- a) Pus discharge from urethra
- b) Urine discharge from urethra
- c) Pain during micturition
- d) Injury to urethra

(lvii) Which is not a part of the fallopian tube?

- a) Isthmus
- b) interstitial
- c) Ampulla
- d) Cornua

(lviii) To see mucosal pattern of stomach , the investigation of the choice is

- a) Barium full of stomach
- b) Single contrast
- c) Double contrast
- d) None of these

(lix) Spot film is taken in MCU

- a) After the micturation
- b) Before the micturition
- c) During the micturation
- d) Before filling the bladder

(lx) In RGU, which of the following contrast media is used?

- a) Urografin 60%
- b) Urografin 76%

c) Barium sulphate

d) Air