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TEE/BMRIT305/2019/2021 - 22



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BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Bachelor of Science in Medical Radiology & Imaging Technology

Course Name – Contrast & Special Radiography procedures

Course Code - BMRIT305

(Semester III)

Time : 1 Hr.15 Min.

Full Marks : 60

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

Choose the correct alternative from the following :

- (1) Type of contrast include:
 - a) Positive contrast
 - b) Negative contrast
 - c) Neutral contrast
 - d) Both Positive contrast & Negative contrast
- (2) Route of contrast administration includes all of the following except:
 - a) Oral
 - b) Intramuscular
 - c) Intravenous
 - d) Enema
- (3) Gadolinium is a type of:
 - a) Paramagnetic contrast agent
 - b) Monocrystalline iron oxide nanocompound
 - c) Metalloporphyrin
 - d) Diamagnetic
- (4) Which of the following is not a property of contrast media?
 - a) Osmolarity
 - b) Viscosity
 - c) Toxic
 - d) Miscible
- (5) All are dose dependent side effects except:
 - a) Metallic taste
 - b) Nausea and vomiting
 - c) Flushing
 - d) Urticarial
- (6) Which of the following is not used for treatment of pulmonary edema?
 - a) Oxygen mask
 - b) Methyl prednisolone
 - c) Chlorpheniramine
 - d) Hydrocortisone
- (7) Which is the most common oral contrast agent used:
 - a) Barium sulfate
 - b) Gastrografin
 - c) Gadolinium
 - d) All of these

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- (8) Uses of blood pool contrast agents include all except:
- Cardiac imaging
 - Gastrointestinal bleeding
 - Tumor angiogenesis
 - Splenic infarction
- (9) Which of the following is not an MRI contrast agent?
- Gadolinium
 - Iotrol
 - Metalloporphyrins
 - Dextrans
- (10) Spin-spin relaxation effect is produced by:
- Positive contrast agents
 - Negative contrast agents
 - Both Positive contrast agents & Negative contrast agents
 - None of these
- (11) Advance of oral contrast agents include:
- Adequate distension of bowel by the oral contrast agents helps in easy detection of bowel pathology
 - Iso-osmotic contrast agents without orally administered
 - For bowel wall enhancement iso-osmotic contrast agents can be used with positive IV contrast
 - All of these
- (12) Drug used for mild anaphylactic reaction is:
- Chlorpheniramine
 - Adrenalin
 - Gastrografin
 - None of these
- (13) Metalloporphyrins are used as contrast agents due to:
- High solubility
 - High toxicity
 - Selective retention in tumor cells
 - All of these
- (14) Heme proteins act as contrast agents because:
- Presence of copper
 - Presence of iron
 - Presence of calcium ions
 - Presence of magnesium
- (15) The amount of oral contrast medium used in CT abdomen is
- 5 ml
 - 100 ml
 - 10 ml
 - 1000 ml
- (16) Iohexol comes in the category of
- Non-ionic dimer
 - Ionic monomer
 - Ionic dimer
 - Non-ionic monomer
- (17) Idiosyncratic contrast medium reactions are
- Anaphylactoid
 - Anaphylaxis
 - Delayed hypersensitivity
 - Immune complex type
- (18) In sickle cell anaemia following contrast material should be used
- Low osmolality contrast media
 - High osmolality contrast media
 - Isosmolar
 - Hyposmolar
- (19) Paramagnetic agents cause alteration in
- Decrease T1 relaxation
 - Decrease T2 relaxation
 - Increase T2 relaxation
 - Increase T1 relaxation
- (20) Positive bowel contrast agent for MRI scan is
- Water
 - Ferrite

- c) Barium sulphate
 (21) Breast feeding after contrast administration should be avoided for
 a) 48 hrs
 c) 1 week
- d) Gadolinium
 b) 24 hrs
 d) Not required
- (22) Buscopan is contraindicated in all, except:
 a) Myasthenia gravis
 c) Pyloric stenosis
- b) Paralytic ileus
 d) Open angle glaucoma
- (23) Glucagon is contraindicated in all, except:
 a) Insulinoma
 c) Phacochromocytoma
- b) Glucagonoma
 d) Glaucoma
- (24) Following material is used for radionuclide imaging of gastrointestinal bleeding:
 a) Tc 99 m labeled red blood cells
 c) FDG
- b) Tc 99 m labeled white blood cells
 d) Tc 99 m labeled parathyroid hormone
- (25) Contrast enema in neonatal bowel obstruction uses:
 a) Ionic contrast medium
 c) Barium
- b) Non-ionic contrast medium
 d) Air
- (26) For imaging duodenal loop in a barium examination following position is preferred:
 a) Supine
 c) Left lateral
- b) Prone
 d) Right lateral
- (27) Radiographic examination of salivary glands and its ducts by means of contrast medium is termed as
 a) Ductography
 c) Sinography
- b) Sialography
 d) Cholelithiasis
- (28) 95% of adult spleens measure _____ or less in length
 a) 14 cm
 c) 16 cm
- b) 12 cm
 d) 10 cm
- (29) Intrahepatic ducts are dilated if their diameter is more than _____ of the accompanying portal vein branch
 a) 50
 c) 40
- b) 60
 d) 30
- (30) Upper limit for pancreatic duct measurement is
 a) 8 mm
 c) 6 mm
- b) 3 mm
 d) 10 mm
- (31) After how much of a bolus injection, arterial phase begins for CT abdomen
 a) 50 s
 c) 25 s
- b) 100 s
 d) 7 s
- (32) Biliary contrast media are
 a) Monoiodobenzoic acid derivatives
 c) Iodic acid derivatives
- b) Triiodobenzoic acid derivatives
 d) Barium derivatives
- (33) T-Tube cholangiography is performed on _____ postoperative day
 a) Eight
 c) Tenth
- b) Six
 d) Two

- (34) Following is the indication for biphasic scanning of liver
- | | |
|-----------------|-------------------|
| a) Cirrhosis | b) Jaundice |
| c) Liver tumors | d) Cholelithiasis |
- (35) 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 |
- (36) What is the length of chiba needle?
- | | |
|-------------|-------------|
| a) 15-20 cm | b) 20-25 cm |
| c) 25-30 cm | d) 30-35 cm |
- (37) 1 F = _____
- | | |
|----------------|---------------|
| a) 0.0131 inch | b) 0.254 inch |
| c) 0.314 inch | d) 0.894 inch |
- (38) 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 |
- (39) 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 |
- (40) Which of the following is true regarding 5 min film of IVU?
- | | |
|--|--|
| a) Not mandatory | b) Invaluable in modifying the examination |
| c) Compression should be applied prior to 5 min film | d) Pelvicalyceal system is clearly seen in this film |
- (41) 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 |
- (42) Which is the best view for UV junction calculus?
- | | |
|---------------------|-------------------------------|
| a) Plain film | b) Full film with compression |
| c) Post releasefilm | d) Post micturition film |
- (43) 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 |
- (44) Which is the best position to demonstrate the ureterocele?
- | | |
|----------------------|-------------------------|
| a) Supine position | b) Prone position |
| c) Dead lateral view | d) 30° oblique position |
- (45) 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 |

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(46) Which of the following is true regarding conray-400?

- a) It is a non-ionic contrast
- b) It gives better image quality than omnipaque on IVP
- c) It is associated with fewer incidences of contrast reactions
- d) Less cost effective

(47) In IVU, scout film is taken

- a) To check the exposure factors
- b) To check bowel preparation
- c) To see any calculus
- d) All of these

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

- a) Nephrogram
- b) Ureterogram
- c) Pyelogram
- d) Full film

(49) In IVU, scout film is taken

- a) To check the exposure factors
- b) To check the bowel preparation
- c) To see any calculus
- d) All of these

(50) Which is the best investigation to look for fallopian tube?

- a) USG
- b) MRI
- c) CECT
- d) HSG

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

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

(52) HSG is done for

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

(53) Indication of HSG

- a) Infertility
- b) Recurrent abortion
- c) Migrated IUCD and uterine and tubal lesion
- d) All of these

(54) Leech Willkinson cannula used in

- a) Barium swallow
- b) IVU
- c) HSG
- d) MCU

(55) What is corpus luteum

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

(56) About bowel preparation for IVU study, following is false

- a) Laxative are given
- b) Liquid diet advised day before study
- c) Bowel preparation is not required
- d) All of these

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

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

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

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

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

a) Virtual colonoscopy

c) MR colonography

b) CT colonography

d) Barium enema

(60) In T-tube cholangiography, how much contrast is required?

a) 25-30 cc

c) 20-25 cc

b) 15-20 cc

d) 30-35 cc