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SUBJECT	VIVA ASSIGNMENT CRP AND CP
DISCIPLINE	RADIOLOGY 4 th SEMESTER

Q No 1

Ans:

Contrast is ideal for intravenous administration:-

Iodinated Contrast Agents:-

The non-ionic dimers are the most ideal contrast agent used for intravenous administration. As they are less toxic and delivers

more iodine with the least effect on osmolality.

Almost all radiological procedures are performed with the injected contrast agents which involves the administration of iodine-containing compounds.

Using those compound that are iodine containing are related with toxicity and have great radio-opacity.

There are also some characteristics by which this contrast media is considered much better than the compounds with higher atomic number.

" It is a form of intravenous contrast media which contains iodine and enhances the visibility of the vascular organs and structures during radiographic examinations. There are some pathologies which have improved visibility upon using an iodinated contrast, such as cancer "

They are low or iso osmolar contrast media.

Iodinated Contrast Media are differentiated in:

* Ionic contrast agents:-

1. Ionic dimer
2. Ionic monomer (high-osmolar contrast Media)

* Non Ionic contrast agents:-

1. Non-ionic dimer (low or iso-osmolar contrast Media)
2. Non-ionic monomer (low-osmolar contrast Media)

Characteristics:-

It is given by intravenous route because of the following favourable characteristics:

- * It highlights blood vessels
- * It enhances the tissue structure of organs
- * It spread throughout the body easily.
- * Immediately after injection, the contrast agents begins to disperse directly into water and extravascular space.
- * Once it is injected into the blood stream through IV route

The contrast media then circulates through the heart and passes into the arteries, then the body's capillaries and then passes into the veins and back to the heart.

- * Adverse effects of these contrast medias are usually mild or self-limiting.
 - * Maximizing the clinical benefits
 - * Intravenously contrast medias are commercially available at a wide range.
 - * There is no barrier (except skin which is then get eliminated by needle) for contrast media if injected through IV.
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Q No 2:

Ans:

Venography performed:-

(also called phlebography or ascending phlebography) is a procedure in which an X-ray of the vein, a venogram, is taken after a special dye is injected into the bone marrow or veins.

The dye has to be injected constantly via a catheter, making it an invasive procedure.

Normally the catheter is inserted by the groin and moved to the appropriate site by navigating through the vascular system.

Venography:-

The Venography can also be used to distinguish blood clots from obstructions in the veins, to evaluate congenital vein problems to see how the deep leg vein valves are working or to identify a vein for arterial bypass grafting.

Specific Venography procedures

The Venography can be divided into following sections.

Peripheral Venography:-

- Lower limb Venography
- Upper limb Venography
- peripheral varicography

Central Venography:-

- Inferior vena Cavography
- Superior vena Cavography

Selective visceral Venography:-

- Renal Venography
- Hepatic Venography
- Portal Venography

Contraindications:-

The common contraindications for Venography include:

- Contrast Media allergy
- Impaired renal function
P.D.T. 0

- Blood - clotting disorders
- Anti coagulant medication
- Unstable cardiopulmonary
- Non - consent by patient to procedure.

Q No 3.

Ans:

Loopogram:-

A loopogram is a radiographic exam that will visualize the loop of bowel that has been surgically connected to substitute for your urinary bladder.

Contrast:-

(X-ray dye) is introduced into your stomach through a small catheter in order to visualize the small bowel extending to the stomach.

A loopogram is ordered whenever there is a large amount of bladder removed. The ureters can be connected to a loop of small bowel which drains through an ostomy (also called an ilea) into an external drainage bag.

patient preparations:-

No preparation is necessary, please bring an extra stoma bag and any dressing you may use - quite because your drainage bag will be removed by the procedure. Report 15 minutes before your scheduled appointment time.

Why would some one need a Loopogram:-

In cases of surgical intervention to treat bladder cancer, a laparoscopic radical cystectomy or a cystoprostatectomy can be performed. During these procedures, the bladder is removed.

To restore urinary flow to patients, surgeons then have a number of options to divert the flow of urine.

A Loopogram tests the ileal conduit to see if it is functioning as it should.

Loopogram procedure:-

- ⇒ Fluoroscopic imaging is done with a contrast called X-ray dye.
- ⇒ The contrast dye shows up on the images and allows the radiologist to clearly see and check the internal organs.
- ⇒ patients lies supine on the examination table.
- ⇒ The stoma bag will be removed
- ⇒ The radiologist will clean the colostomy stoma and insert a catheter.
- ⇒ This exam usually takes about 30 minutes to 1 hour.

What does a Loopogram examination show:-

The examination shows:

1. Kidneys
2. Ureters
3. Ileum
4. Stoma

Q No: 4:

Ans:

Role of Radiologic Technologists in performing Fluoroscopic procedure:-

The radiologic technologist who use fluoroscopy should properly trained in its use.

Following recommendation can be applied to all fluoroscopy procedures by the radiologic technologists they include.

Assuring that all operators of the system radiologic technologist are trained so that they understand the operating of the fluoroscopy system including the implication for radiation exposure from each mode of operation.

The radiologic technologist reviewing the patient clinical history to ensure the proper imaging procedure has been ordered.

Preparing the patient for the procedure.

Selecting the proper imaging equipment and associated accessories

positioning patients to best demonstration of the anatomy of interest.

immobilizing patient as necessary.

proper administering medications such as contrast agent prescribed by a licensed practitioner.

Determining the radiographic exposure technique while applying principles of radiation protection to the patient and safety.

At the end the radi-technologists discuss the procedure with the doctor take further steps.

Q No: 5:

Ans:

Catheter:-

In medicine a catheter is a thin tube made from medical grade materials serving a broad range of functions.

Catheters are medical devices that can be inserted in the body to treat diseases or perform a surgical procedure.

Why catheter are used:

Urinary catheters are used to drain the bladder. Your health care provider may recommend that you use a catheter if you have urinary incontinence (leaking urine or being unable to control when you urinate).

Urinary retention (being unable to empty your bladder when you need)

How catheter are used:-

Most often, the catheter is inserted through the urethra.

This is the tube that carries urine from the bladder to the out side of the body.

Sometimes the provider will insert a catheter into your bladder through a small hole in your belly. This is done at a hospital or provider office.

Types of Catheter:-

There are three types of catheters:

1. **Indwelling Catheters** (Urethral or suprapubic catheter)
2. **External Catheters** (Condom catheter)
3. **Short-term Catheters** (Intermittent catheters)

Guide wires:-

They are the stainless steel metallic structure that guides the catheter through the blood vessels for placement.

Guide wire are used for urology, cardiology and radiology angiography procedures.

Used:-

Thin guide wire are designed to navigate vessels to reach a lesion or vessel segment.

once the tip of the device arrives at its destination

It acts as a guide larger catheter can rapidly follow for easier delivery to the treatment site.

Types:

There are three types of guidewires:

1. Solid Core Wire:-

The central wire is encased by a metal "Spring" coil.

2. Mandrel Wire:-

The outer spring coil is at one end.

3. Ribbon Wire:-

The Spring coil encases both the core wire and a ribbon wire.
