

CRP and CP

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Subject

CRP and CP

Exam

final term.

Q3

Ans

Ileocecum

This is a diagnostic test
is show the loop and
bowel that has been
used substitute for
urinary bladder.
patients who do not have
a bladder or have a
malfunctioning bladder may
undergo a surgical
produce called a
urinary diversion to reroute
the flow of urine through
the opening in the Abdomen.
The opening called a
stoma. The stoma has no
muscle and cannot
control urine flow so
that urine flow continuously
through it this section
of the bowel is
called ileal conduit
the urine that flow that
is conduit to the stoma
is collected external
pouch called S toma bag

(2)

Benefits

This examination will help your doctor to make a correct diagnosis or decision about your treatment.

OR

Indication :-

following bladder resection to demonstrate anatomy of ileal conduit ureters and renal pelvicalyceal systems.

Contrast

low concentration water soluble contrast agent (150mg/ml^{-1})

Technique

Cannulate ileal conduit with ~~the~~ 14-18F foley catheter and gently inflate balloon in ileal conduit. Inject contrast into ileal conduit. stop injecting when adequately distended.

Images

- 1) Plain AP collecting systems
- 2) post-filling: AP of collecting systems, two oblique of the kidneys with an additional often oblique view of the ureteric loop anastomosis.

Q5
Ang

Catheters

A catheter is a hollow flexible tube that can be inserted into a body

Cavity, duct or vessel catheters
used by allow drainage or
injection of fluids or distend
a passageway by surgical provide
access instruments

The process of inserting a
catheter called
catheterization.

History Late Latin from Greek
katheter came from
kathienai

Catheters made up

Materials A range of polymers
are used for the
construction of catheters
including latex and rubber
silicone and thermoplastic
elastomers.

Characteristics of catheters

- Better torque control
- strength
- Radiopacity
- flexible
- Atraumatic tip
- low surface frictional
Resistance to good
track ability over
guide wire.

(4)

Type of catheters

There are three main type of catheter which are the following

1) Indwelling catheters

2) External catheters

3) Short term catheters.

Uses of catheters include

Catheters used for this purpose are called foley's catheters. The catheter is inserted into the bladder where it is used held in place by a balloon filled with sterile water.

In a procedure called percutaneous nephrostomy catheters drain urine from the kidney.

General complication of catheter catheter

Diagnosis and other complication for using urinary catheter

→ bladder stones

→ blood in the urine

→ injury to the urethra

→ kidney damage

→ septicemia or blood.

Guidewires :-

A device used to enter tight spaces if obstructed valves or channels within the body or to assist in inserting or positioning a catheter, and moving a catheter.

Guide wires vary in size, length, stiffness, composition, and shape of the tip.

A wire or a spring used as guide for device placement of a larger catheter or prosthesis, such as intramedullary or pin.

Construction of Guide wires

They are made of stainless steel or other metallic alloys.

Alloys are formed when two or more metals are mixed in a particular proportion to produce a single substance.

Type of Guide wires

They are two main types of guide wires which are following.

- (1) The Solid Guide wire
- (2) Wapper Guide wire.

(2)

Guide wire construction :-

- Most calibre of 0.014 inch
- 3 main component of guidewire are following
 - Central core
 - Outer covering
 - flexible distal tip

Also all guidewires have a specific surface coating applied.

Q4

Ans Fluoroscopy procedure :-

Fluoroscopy :-
Fluoroscopy is a study of moving body structure similar to an x ray or

The Fluoroscopy is provide the real time dynamic viewing at anatomic structures. Dynamic studies are examination that show the motion of circulation or the motion of internal structure.

During fluoroscopy the radiologist used contrast media to highlight the anatomy. The radiologist then views the continuous image of the internal

(2)
Structure Examination of internal structure. The Fluoroscopy are used moving

Reason for a fluoroscopy

The fluoroscopy are used many type of examination. are procedure of such as barium x rays cardiac catheterization arthrography.

Fluoroscopy may be used alone a diagnostic procedure are may be used conjunction with other diagnostic procedure.

risks of fluoroscopy

to ask your doctor about the amount of radiation used during the procedure and the risk related your particular situation.

There may be other risks depending on specific medical condition.

Examination might include fluoroscopy

- 1) Barium enema
- 2) Barium swallow
- 3) Enteroclysis
- Lumber puncture
- interventional radiology procedures.

(8)

→ Myelogram

→ Small bowel series

During the procedure of fluoroscopy

generally follows following
this process

1) If you are asked to remove clothing
you will be given
gown to wear

2) will be asked to remove any clothing
or jewelry that may interface
with the exposure of the
body area to be
examined.

3) After the procedure has been
completed the IV line
will be removed.

Fluoroscopy technique

During fluoroscopy
maximum image detail is
described this requires high
level of brightness. The
image intensifier was
developed principally to replace
the conventional fluoroscopy
screen which had to be
darkroom the only
after 15 minutes

performing fluoroscopy procedure

During fluoroscopy
produce x ray beam
is passed through the body.

(9)
The image is transmitted to the monitor of body instrument or of an contrast body in detail through the seen

Principle of Fluoroscopy
A fluoroscopy procedure during an x ray beam is passed through the body. The image in the transimitted movement monitor so the of body part of instrument or of contrast the body agent. through seen in detail.

Q9

Ans venography :-

venography also called phlebography or ascending phlebography is a procedure in which x rays of the vein a venogram, is taken after a special dye is injected in the bone marrow.

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

Peripheral venography

(iv) peripheral venography is an invasive procedure requiring.

(10)

IV Injection of contrast medium and use of ionizing radiation, but it is now performed very rarely

Lower Limb

Method

Intravenous venography

Indication :-

- 1) Deep venous thrombosis
- 2) To demonstrate incompetent vein
- 3) Performing oedema of unknown cause
- 4) Congenital abnormality of the venous system

Contraindications

local sepsis

contrast medium

low osmolar contrast medium.

patient preparation

The leg should be elevated over light to lessen oedema. leg swelling is severe

Image

- 1. Both oblique of calf
- 2. Anterior posterior of calf
- 3. Ap of popliteal

Complication :-

due to contrast medium
CO AS for the general complication of intravascular contrast media.

(11)

2) Thrombophlebitis
cardiac arrhythmia

Upper Limb

Method

Intravenous

venography

contrast medium

10cm

300 mg/ml⁻¹

Patient preparation

None

Equipment :-

Fluoroscopy
spot film

unit with
device

complication

Due to the contrast
media -

After care

None

Indication

- 1) Oedema
- 2) To demonstrate the site of
venous occlusion or stenosis
- 3) Superior vena cava obstruction

Technique

- 1) The patient is supine
- 2) A 18G butterfly needle is inserted
in median cubital ven at the
bend.

Portal venography

Method

- late phase superior mesenteric angiography
- Trans splenic approach
- ⇒ Transjugular transhepatic approach

Indication

To check the patency of a portosystemic anastomosis

Contrast medium

10cm 370mg 1ml⁻¹ 50ml

Equipment

- 1) Digital radiography unit
- 2) Arterial catheter
- 3) 10 cm needle

Technique

superior mesenteric angiography

Image

Rapid serial radiography

Complication

Due to contrast medium.

Q1

Ans :- LOCM

low osmolarity contrast media (Locm) are 2.3 times the osmolarity of blood and preferred of intravascular and intrathecal administration.

Modern Locm are generally but not always nonionic monomers

Locm in current use include the following

iopamidol (Isovue)
 iohexol (omnipaque)
 iopromide (Ultravist)
 ioversol (optiray)
 ioxilan (oxilian)

The lom category also include iso osmolal media (locm) which are approximately the same osmolarity as blood.

The only Locm current use is nonic dimer.

iodixanol (visipaque)

The dimer structure of visipaque fits a higher concentration of iodine atoms per osmole permitting a diagnostic level of opacification at less toxic osmolality.

IDEAL PROPERTIES of contrast media agents

- Safe
- Non toxic
- Should not cross blood brain barrier
- Similar physiologic properties when compared to blood, saliva
- Inertness
- Opacification
- Low surface tension
- Easy injectability
- Elimination
- Residual contrast media
- cost effective

to be used IU contrast

- proper viscosity
- low osmolality
- less chemotoxic