

Name

Abdullah


ID

14513

Paper

Date

Radiological
Position

Q2 :- 

OPG (Orthopantomogram) and Cephalogram are types of Dental X-ray. An OPG produces a panoramic view of the jaw whilst a Cephalogram is an X-ray of the facial structure.

Patient Position & Techniques

→ Any bulky clothing and radio-opaque object such as jewellery

Dentures or hearing aids should be removed from the imaged area.

→ The equipment is brought to the start position and careful explanation is given to the patient.

→ A 15x30 cm image receptor is used on ^{an} X-ray machine. However, direct radiography [DR] technology may be utilized on newer

Equipment. The patient walks into the machine, holding the handle and adopting

→ Standing position. Ensure the patient is not rotated by ensuring the sagittal plane.

Light runs down the
Middle of the face
Close the head restraints
The exposure is
Taken. Observe the patient
Careful.

The antero-posterior light
Should be centered
Distally to the Upper
Lateral Incisor. This
Allows optimal positioning
Of the focal trough
The zone of focus
Outside of which
the anatomical detail
Becomes Blurred.

Correct anatomical Coverage
which should include
the entire mandible and
Temporo-mandibular
Joints.

Q.2

When focusing on the lower spine, an x-ray can help detect abnormalities, injuries or diseases of the bones in that specific area. The lumbar spine x-ray can show whether you have arthritis or broken bones in your back. A lumbosacral spine x-ray is small bones (vertebra) in the lower part of the spine. This area include the lumbar region and the sacrum. The area connect the spine to the pelvis.

Q3

Position of patient

And Image Receptor:-

→ For Computed radiography (CR) an (18x24-cm) Image Receptor is generally used.

→ The patient is either supine or seated on the x-ray table, with both legs extended.

→ The affected limb is rotated to centralize the patella between the femur

Cordes and sandbags are placed against the ankle to help maintain this position.

→ The image receptor should be in close contact with posterior aspect.

of the knee joint
leave with its Centre
with the Upper
Tibial Condyle of the

Direction And Centring
of x-ray Beam:-
Centre 2.5cm below


the apex of the
Patella through the
Joint space, with the
Centre ray at 90 degree
to the Long axis of
the tibia

Essential Image Characteristic
The patella must be
Centralized over the
femur

The distal third
of femur and proximal
third of tibia are
included.

Additional Consideration

→ This Projection can also be undertaken in the erect position.

Q4:- 

A skull x-ray is typically done after a traumatic head injury. The x-ray allows your doctor to inspect any damage from the injury. Other reasons you may undergo a skull x-ray included the healthy care providers see many patients for headaches caused by tension. Both kinds of headaches can be very painful.

Q:-

The MAS (milliamperes second)

Determines the

Number of x-ray produced per unit time

And the number of x-ray reaching the film

Determines the

~~Degree~~ Degree of Blackening of

the film. The type of film or system being used

increases the penetrating power of the

x-ray beam. The kVp

controls the property

called radiography

Contrast of an x-ray

Image. The ratio of incident radiation through region

of different thicknesses
(Body part contains
a certain type of cellular composition
which requires an X-ray
beam with a certain
Kvp to penetrate it.)

Q53:-

Pelvic position
of patient and
image receptor:-

The patient lies supine
with their median
sagittal plane perpendicular
to the tabletop
the midline of the
patient must coincide
with the central primary

Beam And table buckley
mechanism

→ To avoid pelvic rotation
the anterior superior
iliac spine must be
Equidistant from the
tabletop

→ The limbs are slightly
abducted and internally
rotated to bring
the femoral neck parallel
to image receptor.