''बेटी बचाओ, बेटी पढ़ाओ''

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR

FACULTY OF FACULTY OF EDUCATION

Faculty Name	:	JV'n Ankita
Program	:	BPT 3rd Semester
Course Name	:	Radio diagnosis
Topic Name	:	LOWER LIMB X-RAYS (ANKLE RAY)

Program Outcome :-

It plays an important role in health sector, provides knowledge about the treatment of patient by the help of physiotherapy.

Course Outcome :-

Understand the fundamentals and basic physics which is used or responsible for the imagining process in medical sector and how to do the image interpretation.

Academic Day starts with – Greeting with saying **'Namaste'** by joining Hands together following by 2-3 Minutes Happy session, Celebrating birthday of any student of respective class and **National Anthem**.

Review of previous Session- **LEG XRAY**

Today We will discuss about- **ANKLE XRAY.**

Lesson deliverance (ICT, Diagrams & Live Example)- ICT, Diagrams

- Diagrams

Introduction & Brief Discussion

ANKLE XRAY:-

An ankle X-ray, also known as an ankle radiograph, is a medical imaging procedure that uses X-ray technology to create detailed images of the bones and joints in the ankle region.

INDICATION :-

1. **Fractures:-** Ankle X-rays are often performed to identify fractures (breaks) in the bones of the ankle, such as the tibia, fibula, or the bones of the foot.
2. **Sprains and Strains:-** They can help healthcare providers assess the extent of ligament or tendon injuries, such as ankle sprains or strains.
3. **Arthritis** :- X-rays can reveal signs of arthritis in the ankle joint, including joint space narrowing and the presence of bone spurs.
4. **Infections :-** They can be used to detect signs of bone infections (osteomyelitis) or joint infections (septic arthritis).
5. **Tumors :-** Ankle X-rays may be used to identify abnormal growths or tumors in the bones or soft tissues of the ankle.

During the procedure, the patient is typically positioned with the ankle in question exposed and properly aligned. X-ray machines emit a small amount of ionizing radiation to create images of the bones and joints, which are captured on X-ray film or digital sensors. These images allow healthcare providers to assess the condition of the ankle and make a diagnosis.

Ankle X-rays are considered a safe and valuable diagnostic tool when used appropriately. However, pregnant individuals or those who may be pregnant

should inform their healthcare provider before undergoing an X-ray, as radiation exposure can be harmful to developing fet uses. In such cases, alternative imaging methods, like ultrasound or MRI, may be considered.

In ankle X-rays, different types of views are used to visualize the ankle joint and surrounding structures from various angles. These different views help healthcare providers obtain a comprehensive assessment of the ankle and can aid in the diagnosis of specific injuries or conditions. The most common ankle X-ray views include:

1) **Anteroposterior (AP) View :-** This view is taken with the patient in a standing or supine position. The X-ray beam is directed from the front (anterior) to the back (posterior) of the ankle. It provides a clear image of the bones and alignment of the ankle joint.
2) **Lateral View :-** In the lateral view, the X-ray beam is directed from the side of the ankle. This view provides a profile or side view of the ankle joint, making it useful for assessing the space between the bones, as well as the alignment of the bones and the presence of fractures or other abnormalities.
3) **Oblique View :-** An oblique view is taken at an angle, typically 45 degrees, to the ankle joint. It helps visualize specific structures that may be obscured in the AP or lateral views. This view is particularly useful for assessing the tibiofibular joint and the talus bone.
4) **Mortise View :-** The mortise view is a specialized view used to assess the alignment of the ankle joint. It is obtained by internally rotating the foot and leg, allowing visualization of the joint space between the tibia, fibula, and talus bones.

University Library Reference-

- The Physics of Radiology and Imaging by K. THAYALAN
- Text book of Radiology for Residents and Technicias by S. K. BHARGAVA

- Suggestions to secure good marks to answer in exam-
  - Explain answer with key point of the answers

Questions to check understanding level of students-

- WRITE THE DIFFERENT VIEWS OF THE ANKLE X-RAYS?
- WHAT IS MORTISE VIEW IN TERM OF ANKLE XRAY ?

- Next Topic- **FOOT X-RAY.**

National song' Vande Mataram'.