



Radiology (M402)

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Dear student select one of the following research topics and please consider the following instructions:-

- 1- Each group of students should not exceed 5 students.
- 2- Writing Format: Times New Roman, size 14, titles size 16 , line spacing 2
- 3- Research pages should not exceed 10 pages and not less than 5 pages.
- 4- Summary and highlights should be included at the end of research
- 6- Illustrative diagrams should be included.
- 7- You should write in your own words after you read literature concerning your research topic
- 8- In case of great similarities between represented researches , these researches will be rejected.
- 9- For each research topic, all subtitles should be covered. You can also discuss additional subtitles that is not mentioned
- 10- References should be included.

Research topics

Choose one of the following research topics:- -

1- MRI of Post- Traumatic Knee Joint.

A- Simplified MRI anatomy for Knee joint in different planes.

B- MRI imaging technique and standard MRI sequences for knee joint.

C- Contraindication for MRI imaging and advantages of MRI over CT in MRI Imaging of the Knee.

E- MRI Findings as regards:

1- Bone injuries (fractures classifications are not needed)

2- Different ligamentous and meniscal injuries.

3- Joint effusion and peri articular soft tissue injuries (en brief).

2- Shoulder Joint: Anatomy, degenerative changes ,

Impingement and common labral injuries in different imaging techniques:

A- Detailed MRI anatomy for shoulder joint in different planes.

B- Shoulder Joint osteoarthritis Findings in X ray, CT and MRI

C- Impingement of shoulder joint and different rotator cuff pathological findings in MRI , ultrasound and X ray imaging modalities.

3-Imaging of Spine Trauma

A-Simplified anatomy for different levels of the spine.

B-Classification of spine trauma.

C-Radiological Findings of spine trauma as regards:

- 1- Vertebral injuries X-ray, CT and MRI highlighting advantages of each imaging modality.
- 2- MRI Findings in cord injuries.

4- Imaging Of Bone Tumors

- A- Classification of different bone tumors according to:
 - 1- Their origin
 - 2- Site and location within the skeleton.
- B- value of each imaging modality (X ray, CT and MRI)in examination of bone tumors
- C- Imaging features and indicators differentiating benign from malignant tumors.
- D- Differential diagnosis of expansile bone lesions with detailed X-ray and MRI Findings for each.

5- Imaging of Spinal dysraphism

- A- Simplified principles and physical aspects for X ray, CT and MRI imaging techniques highlighting general advantages and limitation of different imaging modality
- B- Classification of spinal dysraphism
- C- X ray and MRI findings for different dysraphitic changes.

6- Imaging of avascular necrosis

- A- Principles and physical aspects for X ray, CT and MRI imaging techniques highlighting general advantages and limitation of different imaging modality.
- B- X ray anatomy (AP and Lateral Views) For Wrist Joint.
- C- X ray, CT and MRI findings in imaging of common avascular necrosis lesions at Wrist, hip and Foot regions.

GOOD LUCK