



SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi nagar , coimbatore -35

Affiliated To Dr MGR Medical university

DEPARTMENT: PHYSICIAN ASSISTANT

COURSE NAME : ORTHOPAEDICS

UNIT: THIRD UNIT

TOPIC: FRACTURE



DEFINITION:

A break in continuity of bones is called fracture. It may be due to excessive pressure on bone and bone is unable to absorb this pressure



CAUSES OF FRACTURE





TYPES :

1. Complete fracture
2. Incomplete fracture
3. Comminuted fracture
4. Open fracture
5. Closed fracture
6. Impacted fracture
7. Pathologic fracture



1. Complete fracture

It involves the entire section of the bone

1. Incomplete fracture

Also called greenstick fracture break occurs only through part of crass section of the bone.

1. Open fracture

It is also called compound or complex fractured bone



4. Comminuted fracture

A break with several bone fragments

5. Impacted fracture

When one bone impact to another bone.

6. Pathologic fracture

Fracture occurs due to bone disease or without any other pressure



7. Closed fracture

It is also called simple fracture, it does not produce a bone impact to another bone

Incomplete fracture

Open fracture

Complete fracture



Closed fracture

Pathologic fracture



Comminuted fracture



Impacted fracture





CLINICAL MANIFESTATIONS :

1. Swllelling
2. Localized edema
3. Numbness
4. Tenderness
5. Injured muscle, blood vessels , nerves
6. Acute pain
7. Loss of function



8. Crepitus

9. If open fracture, there may be enhance of haemorrhage that leads to shock

10. Shorting of extremity

11. Deformity



PATTERNS OF FRACTURE :

- 1. Greenstick fracture** - one side of the bone is broken and the other side is bent.
- 2. Oblique fracture** - at an angle across the bone.
- 3. Transverse fracture**- straight across the bone.
- 4. Spinal fracture**- twist around the shaft of bone.
- 5. Compression fracture**- bone collapse on itself.



DIAGNOSIS :

- 1. History collection**
- 2. Physical examination**
- 3. X-ray - Anterior view, lateral view and posterior view**
- 4. CT Scan**
- 5. MRI Scan**



MANAGEMENT:

EMERGENCY MANAGEMENT:

1. Check abc of patient and also maintain it
2. Check vital sign
3. Immediately after injury immobilize the body part while the patient have to move.
4. Slipnt the fracture
5. To support the fracture site
6. In an upper extremely injury the arm maybe



Bandaged to be chest or an injured for home maybe placed In a sitting

7. Cover the wound of an open fracture with a sterile dressing to prevent contamination of deeper tissues



PROCEDURE:

It is of 3 types

1. Close the reduction: it is a method of fracture realignment. address performed manually apply fraction force to bone till end of the bone together.
2. Open reduction: surgical placement of internal fixation devices
3. Traction reduction: the application of a pulling force, especially as a means of counteracting the nature tension in the tissues, surrounding air broken bone.



TWO DIRECTION:

1. PULL OF TRACTION

Traction is the application of a pulling force to an injured part of the body or extremity.

2. PULL OF COUNTER OF TRACTION

Counter traction is the force acting in the opposite direction to the applied traction



ASSESSMENT

- 1. WHAT IS FRACTURE?**
- 2. PATTRNS OF FRACTURE**

REFERENCE

WWW.autorstream.com

WWW.slidehare.com



THANK YOU