

# Injuries - II (Contd.)

# BRUISE / CONTUSIONS

- Pin head or large (Hematoma)
- Raised above surface or Swelling
- Visible at once or after days
  - Re-examine after 48 hours
  - Infra-red photography
  - Careful autopsy (give incision)



## Factors modifying size and shape

- Condition and type of tissue
- Age
- Sex
- Colour of skin
- Natural diseases
- Gravity shifting of the blood



## Delayed bruise

- Need a reexamination after 48 hours

## Artificial Bruise

- Irritants: Marking nut, Calotropis, etc

# HEALING OF BRUISE

- |   |              |
|---|--------------|
| • Red                                     | Fresh        |
| • Bluish (reduced blood)                  | After 24 hrs |
| • Bluish black to brown<br>(Haemosiderin) | 2 - 4 days   |
| • Greenish<br>(Haemotoidin)               | 5 - 7 days   |
| • Yellowish<br>( Bilirubin)               | 7 - 10 days  |
| • Normal color of skin                    | 14 days      |

# Hypostasis

- Cause: Distension of vessel
- Site: Dependent parts
- Appearance: No elevation
- Epidermis: Not abraded
- Margins: Clearly defined
- Colour: Bluish purple
- Incision: Blood in lumen
- Effect of pressure on area: Absent

# Bruise

- Ruptured vessel
- At and around site
- Swollen
- May be abraded
- Merge with surrounding
- Different colours
- Extravasation of blood
- Little lighter in pressure areas



# True Bruise Vs Artificial Bruise

- Cause
- Site
- Colour
- Margins
- Redness and inflammation
- Contents
- Itching
- Vesicles
- Chemical tests

# BRUISE TELL ABOUT

- Object or weapon
- Cause of injury
- Degree of violence
- Time
- Manner



# Complications

- Shock
- Gangrene
- Septicaemia
- Pulmonary fat embolism

# LACERATIONS

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These wounds are  
as a result of application of  
blunt force in which  
skin and underlying tissue  
get torn.



# LACERATIONS

- Edges of wounds are
  - Irregular
  - Ragged
  - Bruised frequently
- Margins – abraded

# LACERATIONS

- Deeper tissue – unevenly divided
  - Strands of tissue crossing the wounds
  - Hair bulbs crushed
  - Blood vessels crushed- less haemorrhage
  - Foreign material in the wound

# Types of lacerations

- Split lacerations
- Stretch lacerations
- Avulsions
- Tears
- Internal lacerations



# Split lacerations

- Linear split wound due to perpendicular force over a bone where intervening soft tissue is less

e.g. scalp, over shin and hands

- With a hand lens all features of lacerations
- If over scalp, hair should be shaved for correct interpretation

# Stretch lacerations

- Stretching due to tangential force
- Sudden deformity due to fracture
- Flap produced indicating direction
  - Kicks from boot
  - Run over by motor vehicle
  - Head strikes wind screen of motor vehicle

# Avulsions

- It is by horizontal impact grinding compression
- Skin is degloved
- Muscles are crushed
- Vehicle wheel passing over a limb



# Tears

- Impact against irregular or sharp objects
  - Fall on earthen ware, blows of broken bottles
  - Irregular tearing of skin and tissues
- A search for foreign material helps in gives a clue of the causative agent

# Internal lacerations

- Force exceeds the tensile strength of internal organs
  - Causes rupture of the organs e.g. liver, spleen and kidneys
- May or may not be associated with abrasion or bruise on the skin

# Characteristics

- Margins .....(swallow tails)
- Tissue bridges
- Hair Bulbs
- Foreign Material
- Haemorrhage



# Ante-mortem Vs Postmortem Lacerations

- Vital reaction
- Bruise or abrasion along margins
- Gaping of wound

# Medicolegal Significance

- Cause of injury
- Weapon Used
- Foreign body
- Age of injury