Neonatal Birth Injuries

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Birth injuries may result from:

- Inappropriate or deficient medical skill or attention
- They may occur, despite skilled and competent obstetric care
Predisposing factors

- Macrosomia
- Prematurity
- Cephalopelvic disproportion
- Dystocia
- Prolonged labor
- Malpresentation (breech, transfers lie)
Cranial Injuries
Erythema, Abrasions, Ecchymoses

- Of facial or scalp soft tissues may be seen after forceps or vacuum-assisted deliveries.
- Their location depends on the area of application of the forceps.
Cephalohematoma

- subperiosteal hemorrhage
- It may result from difficult vacuum or forceps extraction
- Does not cross the sutures
- always limited to the surface of one cranial bone
- swelling is not visible until several hours after birth
Cephalohematoma

- Most cephalohematomas are resorbed within 2 - 12 wk depending on their size.

- They may begin to calcify by the end of the 2nd wk.

- Central depression suggesting (but not indicative) of an underlying fracture or bony defect.
Cephalhaematoma

Management:

- usually resolves spontaneously
- phototherapy if jaundiced
- Blood transfusion if anemic due to severe hemorrhage
- Incision and drainage are contraindicated
Peripheral Nerve Injuries
Risk Factors Associated With Perinatal Brachial Plexus

Maternal Factors

- Excessive maternal weight gain
- Maternal diabetes
- Uterine abnormalities
- Past history of PBPP
Risk Factors Associated With Perinatal Brachial Plexus

Fetal Factors
• Fetal macrosomia

Parturitional Factors
• Shoulder dystocia
• Prolonged labor
• Assisted delivery with forceps or vacuum
• Breech delivery
Brachial Plexus Palsy:

It is due to over traction on the neck as in:

1. Shoulder dystocia

2. After-coming head in breech delivery
Erb's palsy

- due to injury to C5 and C6 roots
- Adduction and internal rotation of the arm with pronation of the forearm
- The upper limb drops beside the trunk, internally rotated with flexed wrist (policeman’s or waiter’s tip hand)
- Moro reflex is absent on the affected side
Brachial Plexus Palsy:

Treatment:

- Support to prevent stretching of the paralyzed muscles
- Physiotherapy: massage, exercise and faradic stimulation
If the paralysis persists without improvement for 3-6 months:

neuroplasty, neurolysis, end-to-end anastomosis, or nerve grafting

offers hope for partial recovery.
The prognosis

- Depends on whether the nerve was merely injured or was lacerated

- If the paralysis was due to edema and hemorrhage about the nerve fibers, function should return within a few months

- If due to laceration, permanent damage may result.
Fracture Clavicle

Difficulty in delivery of:

- the shoulder in vertex presentations
- The extended arms in breech deliveries
Fracture Clavicle

- The infant characteristically does not move the arm freely on the affected side;
- Crepitus and bony irregularity may be palpated, and
- Discoloration is occasionally visible over the fracture site.
Fracture Clavicle

- No intervention
- Immobilization of the arm and shoulder on the affected side
- A remarkable degree of callus develops at the site within a week and may be the first evidence of the fracture
- The prognosis is excellent
Thank you