~~HEMOLYTIC DISEASE~~
NEONATAL JAUNDICE.

Bilirubin - heme breakdown.

RBC → hemoglobin.
heme ↓ globin.
↓ heme oxygenase
Biliverdin.
↓ Bi reductase.
Bilirubin.
→ liver → (bile duct) GI { urine / stool
+ alb conj. UGT1A1

β glucuronidase ↑ in newborn babies ⇒ ↑ abs from GI (entero hepatic circulation)

physiological jaundice:
24 - 72 hours.

pathological jaundice.
1. within 24 hours.
2. ser. Bil. > 15
3. ↑ in Bil 5mg/dL per day.
4. Gp incompatability
5. direct Bilirubin > 1mg/dL.
Clay coloured stool
highly coloured urine?
6. persists for 3-4 weeks

Types.
Breast feeding jaundice
&
Breastmilk jaundice.

- Breast feeding J - inadequate breast feeding causing J

does not get excreted appropriately

Breast milk J → β glucuronidase → increased activity.

1mg Hb → 34 mg Bilirubin

Inspection
- Yellow bulbar conjunctiva stains cephalo-caudally.
→ palm - sole - 13-15 mg/dL
→ face & neck - 5-7 mg/dL
→ chest & u. abd → 7-9 mg/dL.
→ L abd, pelvis, thigh - 9-11 mg/dL
→ leg & forearm 11 - 13 mg/dL

MODIFIED KRAMER'S SCALE.

- ~~trans~~ cutaneous Bilirubinometry } investigation
- Serum Bilirubin

Risk factors. (RBC life span → 90 days)
→ Preterm babies.
→ ↑ RBC count (polycythemia).
→ ↓ RBC life span.
→ defective conjugation enzymes.
→ obstruction in GIT.
→ cholestasis
→ Acidosis (alb level ↓ so gets dissociated)
→ ↑ hemolysis.
- Group, RH incompatability
- Hereditary spherocytosis
- Thalassemia.
- Hemolytic disease.
- G6PD deficiency
→ New born sepsis
(1) → Diabetes (↑ chance of polycythemia)

→ cephalhaematoma.
→ infections.
→ low birth wt.

3 months
Neuro devpt

causes

hemolytic | Non hemolytic

~~Management~~ Tests.

→ Check ser. Bb.
→ Check for hemolysis
- Hb levels (decreased)
- anemia (RBC count).
- blood grouping.
→ WBC count for infection.
- look for antibodies (coomb's test).
→ Smear (PBS) - look for shape eg: spherocytes. look for hemolysis
→ Retic count.
→ Thyroid Function tests
cong. hypothyroidism.

Management

① Photo therapy
② Blood transfusion.

- Blue or light
- 460-490nm.
- replicate babies
- expose all regions except eye & genital region.

kernicterus
↓
seizure
irritability
tone ↑.
↓
neurotoxicity.

risk factors:
- hypoalbuminemia
- preterm (premature)
- sepsis
- hemolytic d/s.
- acidosis.

cord Bb > 5mg/dL.
cord Hb < 10g/dL.
} indication for transfusion