Physical signs

* Napkin Dermatitis

- Most common lesion of newborns, affect almost all of them.
- caused by contact with urine and stool.
- It also depends on the timing and frequency of changing dippers.
- Whiping in one direction only reinforce the problem and prevent healing.
- Good exposure to air must be done to improve healing and prevent further lesions (the child should not wear the dipper 24/ 7).
- It is considered a simple lesion.

* Napkin dermatitis can be superimposed by fungal infection.

- If napkin dermatitis involves skin creases, then it is superimposed by fungal infection.
- If satellite lesions are present, then it is superimposed by fungal infection.
- Satellite lesions are lesions that are located outside the main rash.
- It is a simple lesion and the most common cause is Candida infection.
- It must be treated with antifungal.

* Napkin-like dermatitis can be caused by systematic diseases, such as langerhan cells histocytosis.

- The child usually presents with severe resistant napkin dermatitis.
- Other signs include bone pain, ear discharge and enlargement of the liver and spleen.

* Hypotonia

- While examing hypotonic newborn, we must focus on two important issues
  1. proving that the newborn is hypotonic by :
  - Frog like posture: the outer surface of the thighs are touching the matress.
  - No spontaneous movements.
  - If you try to lift the baby, his head will be extendend and he would slip out of your hands.
  2. Complete examination to find the deferential diagnosis.
  - It can be caused by central or peripheral issues.

* Abnormal colored stool.

- Normal meconium color is yellow.
- A deviation from yellow requires investigations.
- We will look at urine color and jaundice.
- Dark urine and light stool is a sign of obstructive jaundice, which can be caused by biliary atresia.
- In obstructive jaundice :
  - Direct bilirubin is water soluble, so it will go to urine and make it dark.
  - Indirect bilirubin is not soluble, so it will cross blood-brain barrier and reach the brain causing kernicterus.

*Mongolian spots

- Usually appear as multiple blue skin discoloration, most commonly on the lower back.
- It is a benign lesion that usually disappear in the first or second year of life.
- It occurs more often in coloured skins.
- It is a benign lesion like erythema toxicum and neonatal pustular melanosis .
- No need to do extensive blood work (PT,PTT, INR, etc...), only reassure the family.

*Angioneurotic edema is a life-threatening condition that results from anaphylaxis.

- Associated with swelling of tissues which leads to laryngeal spasm and death.
- Could be caused by a bee sting.
- Treatment:
  1. ABC
  2. Epinephrine IM (0,3 for children and 0,5 for adults)
- We don't use IV epinephrine because it needs more time to set the cannula and it may cause arrhythmias.

*Varicella zoster virus infection.

- Characterized by multiple skin lesions at different stages (vesicles, macules, papules, etc...) that are mainly on the trunk.
- It is also associated with pruritis.

- Varicella lesions can occur on areas other than the trunk in certain cases (immunodeficiency or vaccines)
- Vaccine is given as two doses one in first year of life and the other after 3 months of the first dose.
- Treatment is mostly symptomatic.
- It is and exanthem (rash outside the body), not enanthem, which includes lesions on mucous membrane.

* Clubbing of finger nails

- Can be caused by congenital diseases and appears at 6 months of life.
- Usually secondary to respiratory problems or cyanotic cardiac diseases.
- In very rare cases, it can be familial.
- It is tested by Schamroth sign.

* Severe conjunctivitis.

- Present with copious eye discharge and erythema.
- Most common causes according to age :
  - First 48 hours : chemical causes (Silver nitrates, however , this was in the past, when it was used as an antibiotic).
  - 2-5 days : Infection.
  ->5 days: Chlamydia infection, the child and both parents must be treated.
- Treatment of Chlamydia is oral and topical erythromycin.
- Erythromycin in the first two weeks of life is associated with hypertrophic pyloric stenosis.

*Dermatomyositis

- Characterized by:
  1- Proximal muscle weakness
  2- Skin lesions including heliotrope rash, Gottron's papules, shawl sign, V- sign and calcinosis cutis.

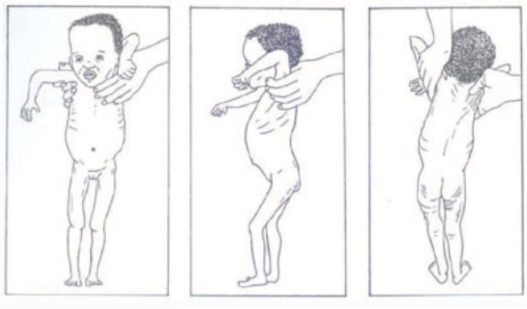
- There is no need for muscle biopsy as it is diagnosed clinically with muscle enzymes testing.

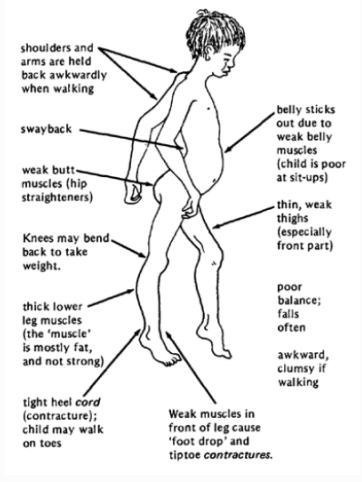
* Sunset eyes

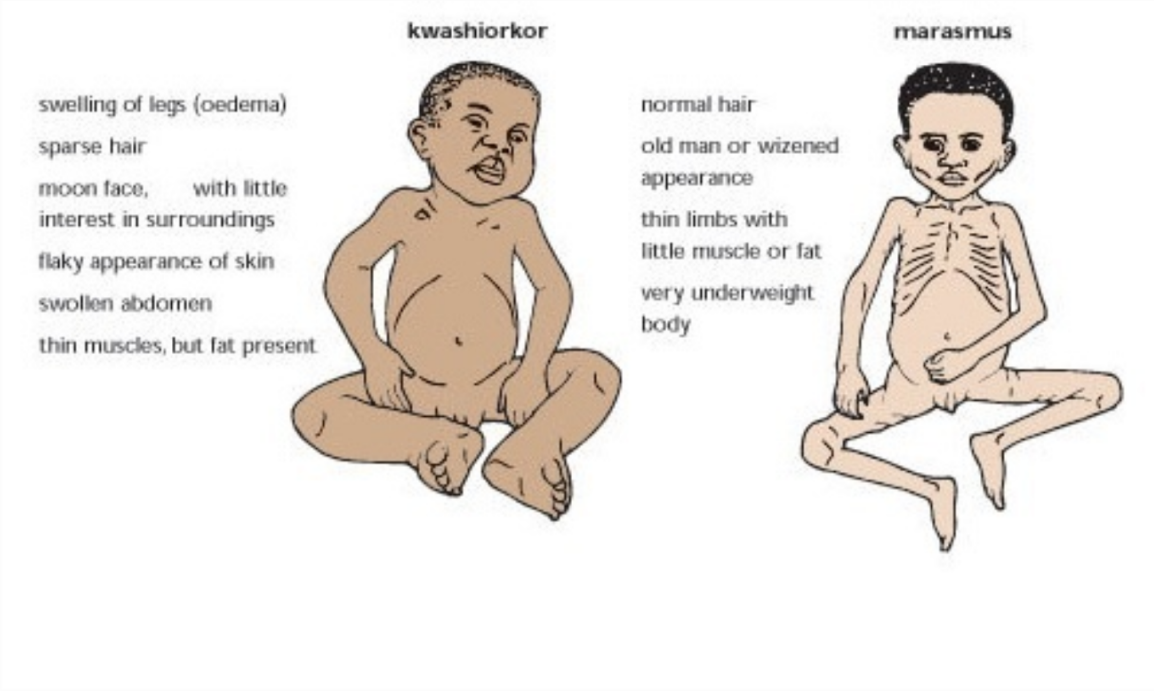
- Typically caused by hydrocephalus.
- Associated with paralysis of vertical gaze.
- It maybe normal but must be with normal size head.

* Severe muscle wasting

- Most obvious on the buttocks.
- Mid upper arm circumference can be used to measure it.
- Can be caused by celiac disease.
- When examining abdominal distention, the child must be standing for the most accurate visualization.
- Muscle wasting occur in marasmus, unlike kwashiorkor, which is characterized by collection of edema.

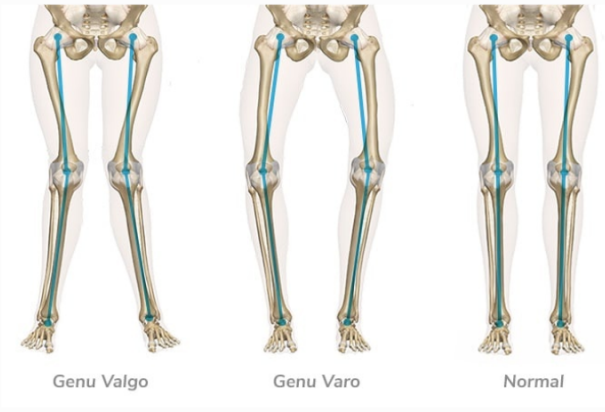




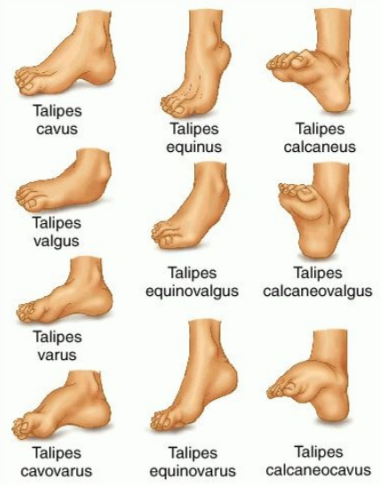


* Spider naevi
  - Red papules.
  - Can be found in chronic liver disease.
  - Associated with general fatigue and decreased appetite.
  - You should look for other signs of chronic liver disease.

* Genu varum
  - Bowing of the legs.
  - Could be normal between 1 and 3 years.
  - Found in Ricketts (Vitamin D dependent Ricketts and Vitamin D resistant Ricketts).
* Genu valgum
  - Opposite of genu varum.
  - Called knee lock.
  - Maybe normal between 4 and 6 years but we must pay attention to the other signs.



* Club foot



- Many types including talipes equinivalgus and talipes calcanovalgus.
- It is a deformity not a malformation.
- Malformation is a problem with the mechanism.
- It is of utmost importance to put the patient in a cast since day 1 to treat this condition, otherwise the patient will require surgery.

*Purpura or ecchymosis

- It is a brown skin lesion, non-blanchable with pressure.
- If the patient appears well, it is most commonly caused by ITP or something similar.
- If the patient is ill and has fever, it is most commonly caused by acute meningococcemia.
- It is a very fulminant infection where the patient might die on the way to the hospital.
- Should be treated emergently with antibiotics that are active against gram-negative diplococci.

*Nevus sebaceous

- There is a risk of malignancy transformation so it must be excised.

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