cleft lip [CL] , **cleft lip** and palate [CLP] , **cleft** palate [**CP**] alone . (☼)

CLP :

❖ Primary vs secondary

Primary palate: located anterior to incisor foramen developed at 4 to 8 week of gestation.

Secondary palate: located posterior to incisor foramen developed at 8 to 12 week of gestation.

CLP: start in the primary palate and extent till it reach the incisor foramen.

Isolated cleft palate started posteriorly at uvula and then it extent Anteriorly till it and stop at incisor foramen.

❖ Etiology :

- Environmental .
- Drugs: anti convulsant
- Genetics :

  ☒ Van derwoud's syndrome .(autosomal dominant syndrome) the patient has CLP or CL alone and lower lip pits due to salivary gland sinus.

❖ Incidence :

- Sex : CLP affect male more than female
- Race .common in asian 2/1000,europ1/1000,Africa 0.5/1000

CP :

- Etiology :

  - Environmental .
  - Drugs: steriod
  - Genetics :

    - ☒ Stickler syndrome .(CP+ opthalmological problems)
    - ☒ Peirre-Robin sequence : it started with micrognathia or retrognathia(small mandibale) which lead to glossoptosis (protruding tongue) that prevent the shelf from fusion that lead to CP it may lead to air way obstruction

    Note: complete CP known as submucus cleft , the pt has pifid uvula ,diastasis of the muscle and notch in the hard palate we can see the discontinuity of mucosa.

- Incidence :

  - Sex .
  - Race .

Management :

- CL repaire……..3/12 .
- CP repaire……..1 year .

Note: CL repair at 3 months according to role of 10 (10 weeks-10 bounds-Hb more than 10-WBC less than 10).

Complication:

- Suckling**:** the baby can not create a negative pressure to suckle
- Speech : the child has difficulty in speech so the mangment is done early befor the child start to speak at 12 month
- Hearing: the child has difficulties in hearing cause the eustachian tube is attached to muscle of soft palate which is misalignment and malfunction and can not adjust the pressuer

Prominent ears :

poor formed anti helix usually present bilaterally and there is no problem with hearing

Stahl's ear :

Common in SA the pt has third crus which lies at right angle.

Microtia :

Small or absent ear, it is treated by reconstruction of the ear and insert part of the costal cartilages shaped as the normal ears, if it present bilateral the pt will be deaf and he need hearing aids.

Polydactly :

Extra finger classified as ulnar-radial –central.
Most common one is the ulnar occur as small skin projection or as a whole finger with or with out bone and with or without nail.

Syndactly :

Fusion of fingers associated with ulnar deficiency .
It can be classified as complete and incomplete according to the extent of the fusion,simple and complex according to bone involvement(complex with bone ,simple without bone),familial and non familial ,syndromal and non syndromal.
-complicated syndactly:there is an extra finger which is also fused.

Clinodactly :
Deviation of some fingers ulnar or radial due to delta phalanx.

Macrodactly :
Big finger , the most common affect is the median innervated finger ,treated surgically if the finger is to big it is better to be amputated but if it small we debulk the finger.

thumb hypoplasia:
absent thumb

Brest hypoplasia:
normal Brest at one side and absent one at the other side, it can be isolated or part of syndrome as bolen syndrome.

Bolen syndrome:
It is vascular lesion insult the brachial artery at age of 6 weeks in intrauterine life ,the entire upper arm will be affected ,no pectoralis muscle ,atrophic axilla, small scapula and short lower limb they may have syndactly as will.

Apert"s syndrome:
Suture of the skull fused prematurely (carinosyntosis) pt has shale orbit ,protruded eyes ,maxillary hypoplasia ,air way problem and congenital hand problem.

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