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FACULTY OF NURSING

PHYSICAL AND BEHAVIOURAL ASSESSMENT OF NEWBORN

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INTRODUCTION

Each new born baby is carefully checked at birth for signs of problems or complications.

- A complete physical assessment will be done that includes every body system.

DEFINITION

Health assessment is through inspection of detailed study of entire body or same part of the body to determine the general physical and mental retardation of the body.

Cont....

Neonatal assessment can be classified as:-

- Immediate assessment includes an Apgar score at 1-5 min.
- Subsequent assessment within first hour of life.
- Ongoing assessment includes vital signs physical assessment assessment of behaviour.

Purposes of physical Assessment

- Discover common variations of Normal or obvious defects
- Quickly initiate intervention or referral for deviations from normal
- Establish data base for serial observations and comparison.

PHYSICAL ASSESSMENT

- An infant should receive several physical assessment in the first 24-48hrs of life.

APGAR-SCORING SYSTEM

SIGN	0	1	
PULSE	**ABSENT**	**SLOW,< 100/ mt**	**> 100/ mt**
RESPIRATORY	**ABSENT**	**SLOW,WEAK CRY**	**GOOD,STRONG CRY**
ACTIVITY	**LIMP**	**SOME FLEXION OF EXTREMITIES**	**WELL FLEXED, ACTIVE MOTION**
GRIMACE	**NO RESPONSE**	**GRIMACE**	**CRY/COUGH/ SNEEZE**
APPEARANCE	**BLUE,PALE**	**BODY PINK EXTREMITIES BLUE**	**COMPLETELY**

Advantage of Apgar score

- Easily learned.
- Clear parameters
- Fast and inexpensive.
- Requires no special equipment.

Disadvantages of Apgar score

- Apgar score is not considered as measure of long term outcome nor good predictors.
- Even among severely depressed infants with apgar score of 3 or less at 5 min fewer than 5 percent will have cerebral palsy.

Significance of Apgar score

- A healthy newborn has an apgar score of 7-10 at both 1 min and 5 min. These infants rarely need resuscitation.
- A second group of infants ,with apgar score from 3-6 are considered moderately depressed.
- Infants with apgar score of 0-2 are severely depressed are require intensive resuscitation.

ASSESSMENT OF VITAL SIGNS

- Auscultation of heart rate ,breath sounds and bowel sounds is best accomplished when the infant is in a quiet state at the beginning of the assessment period.

GROWTH ASSESSMENT

GENERAL GUIDELINES:-

- Provide normothermic, non stimulating area
- Undressed the examine area only
- Proceed in orderly sequence
- Proceed quickly
- Comfort the infant
- Involve parent

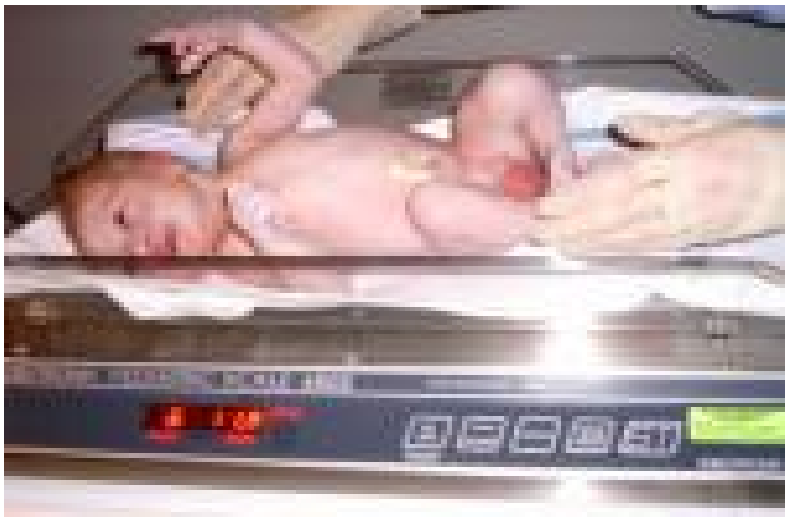
MEASUREMENT

Weight-2.5-3 kg.

Length-48-53cm.

CC & HC - 30-33 cm. &33-35cmHC<CC=MICROCEPHALLY

HC IS 4cm >CC =HYDROCEPHALLUS



Measurement of head circumference

ASSESSMENT OF GESTATIONAL AGE:-

Gestational age can be determined by an assessment of following physical characteristics :-

- Edema of hands and feet
- Skin Texture
- Lanugo
- Plantar creases
- Nipple information
- Ear form and thickness
- Male genitalia
- Female Genitalia

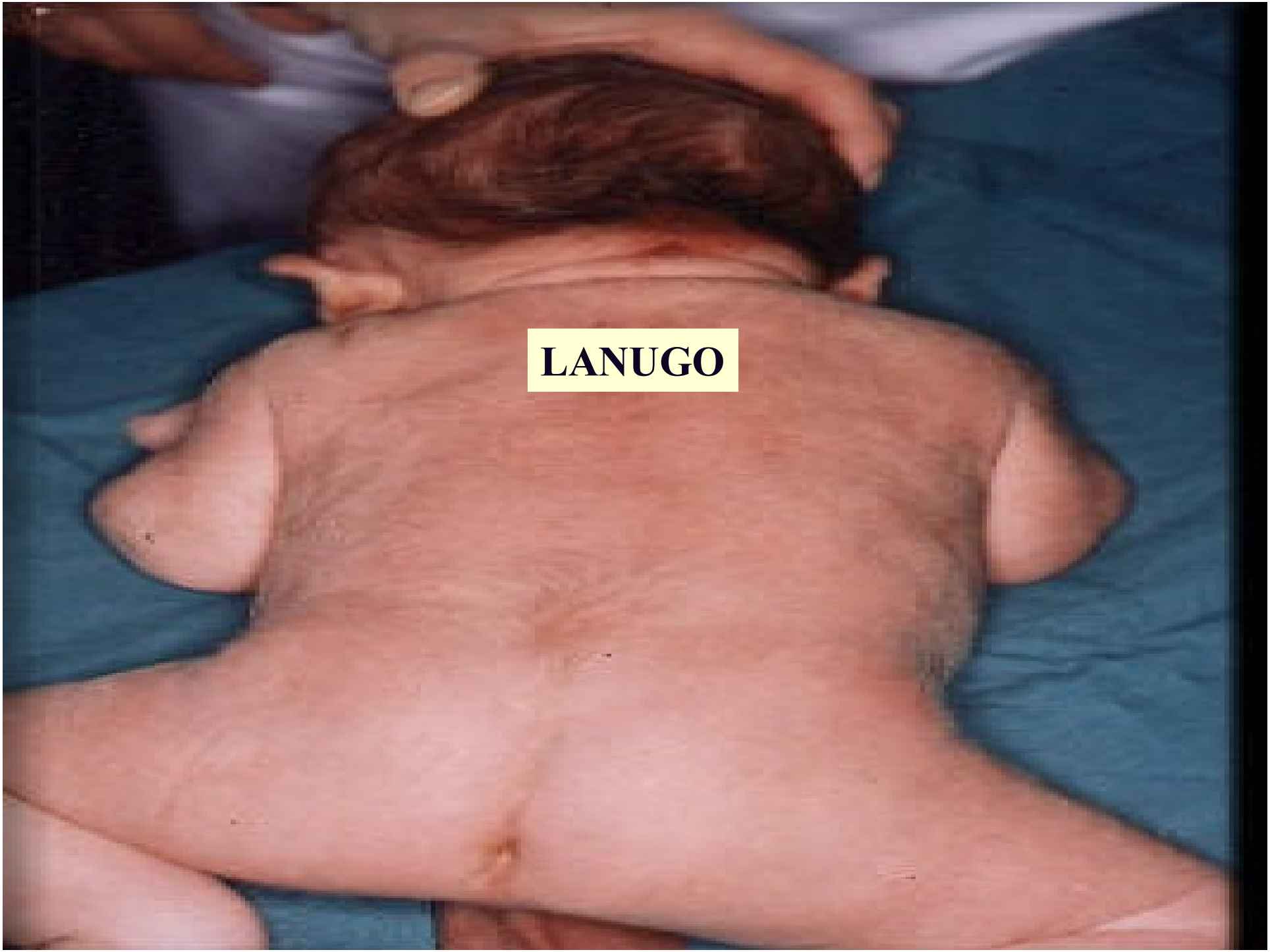
MORTALITY RISK ASSESSMENT

- After physical and gestational age assessments of the infant are completed, determining the mortality risk of the infant is done.
- This is only for LBW i with problems.

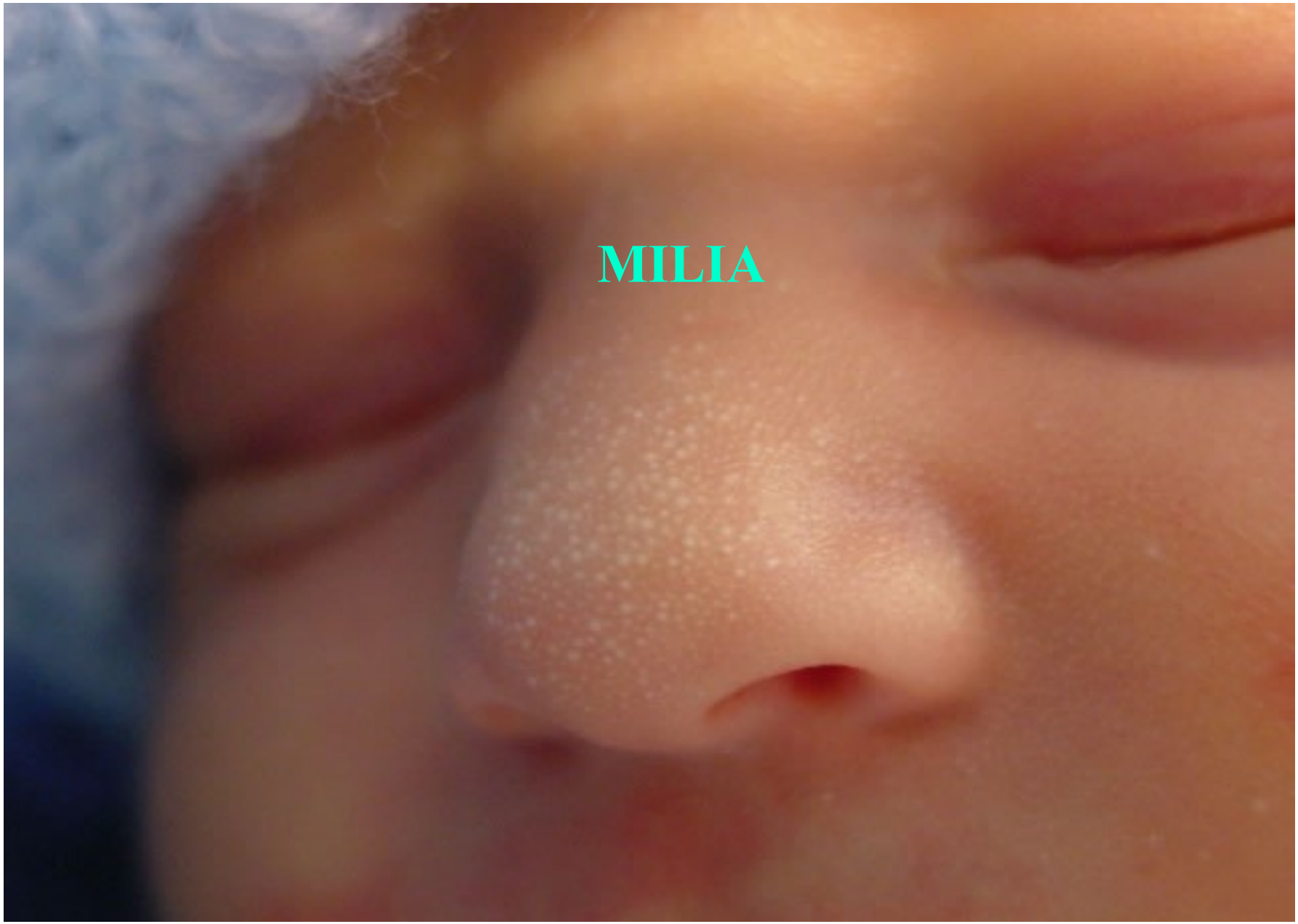
PHYSIACL ASSESSMENT

- Infant should be naked.
- Kept baby warm
- Uncover the infant's body for only brief periods at a time.

INTEGUMENT

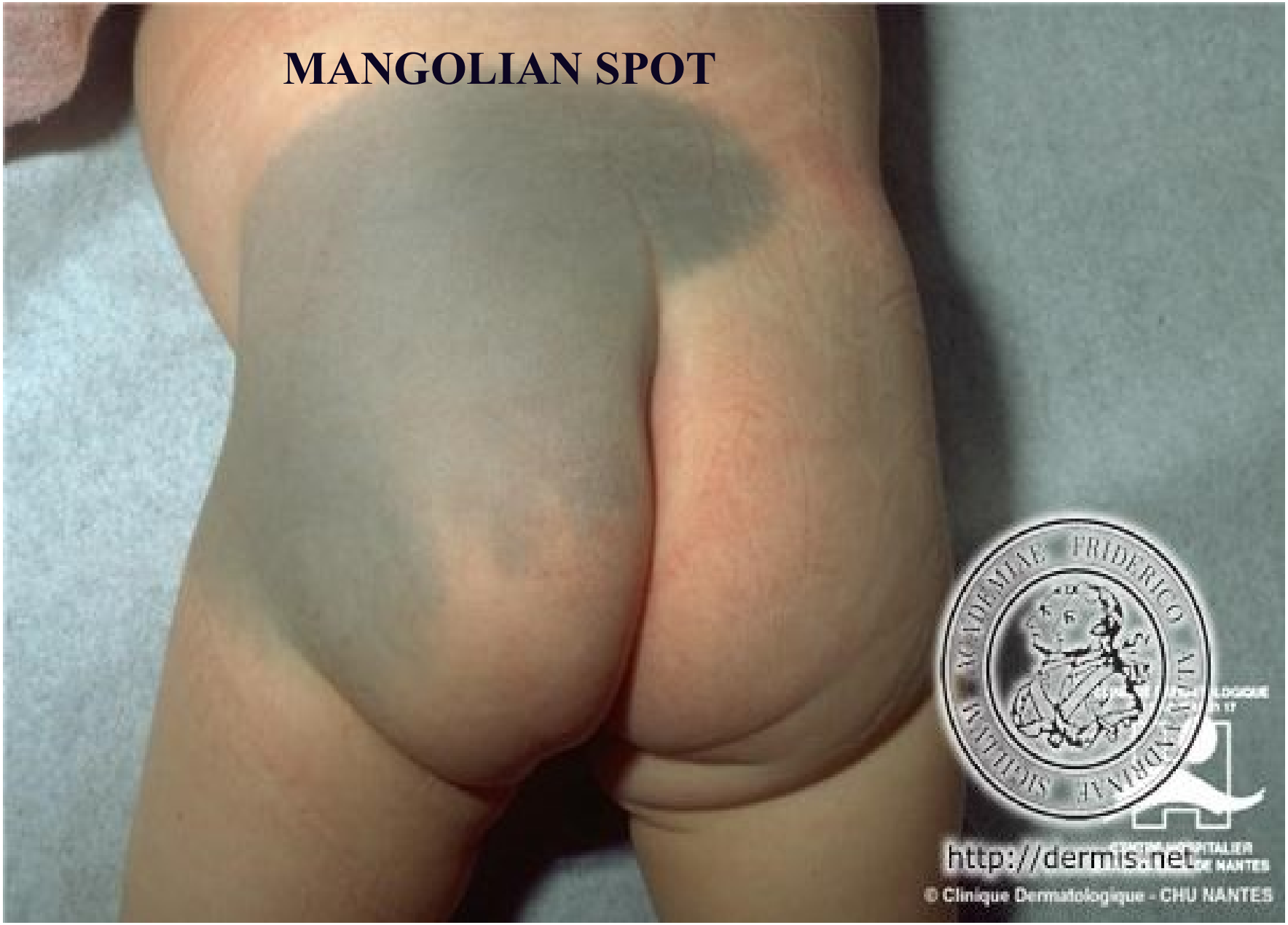

LANUGO

VERNIX CASEOSA


MILIA


MILIA
A.D.A.M.

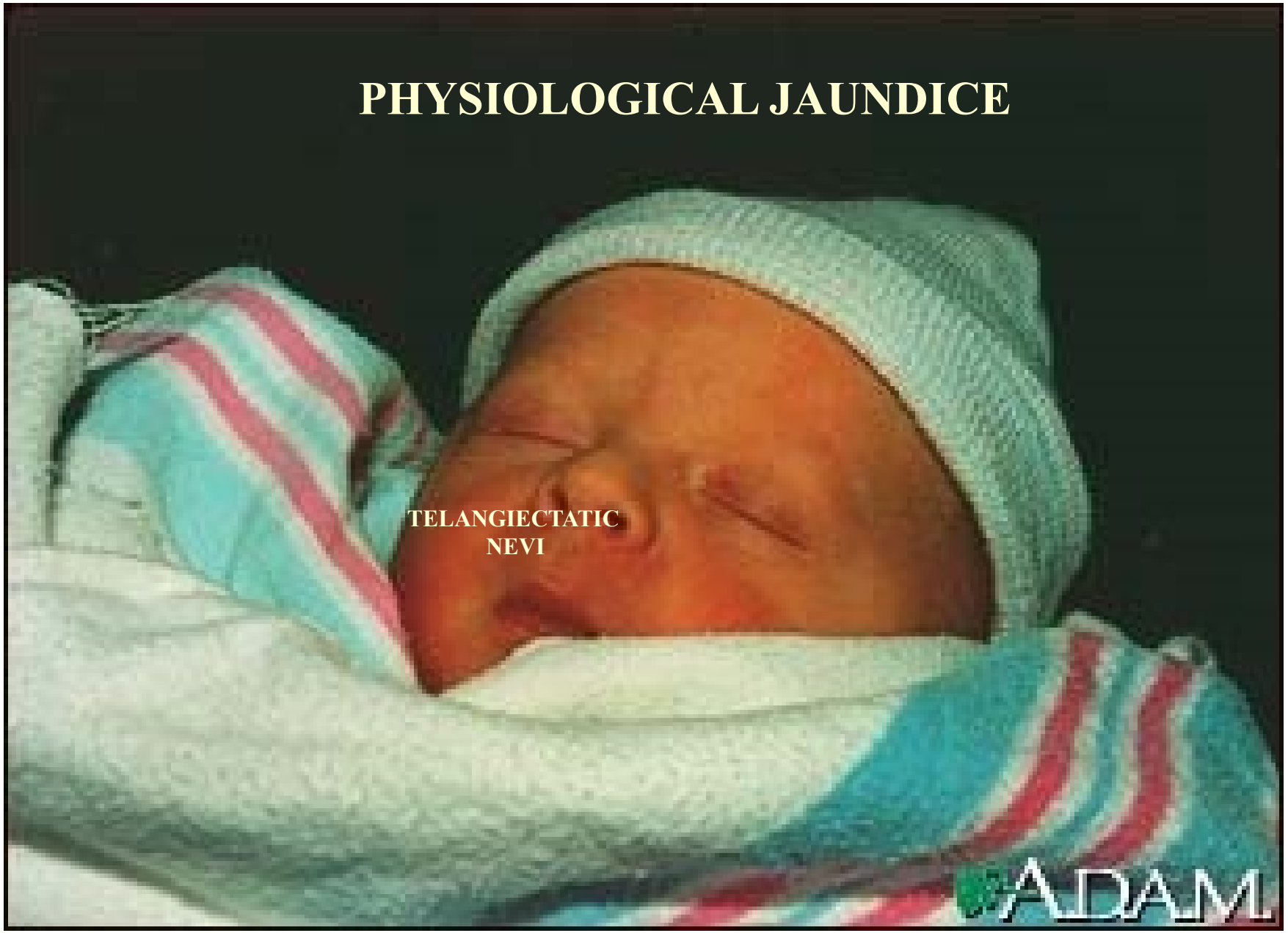
MANGOLIAN SPOT

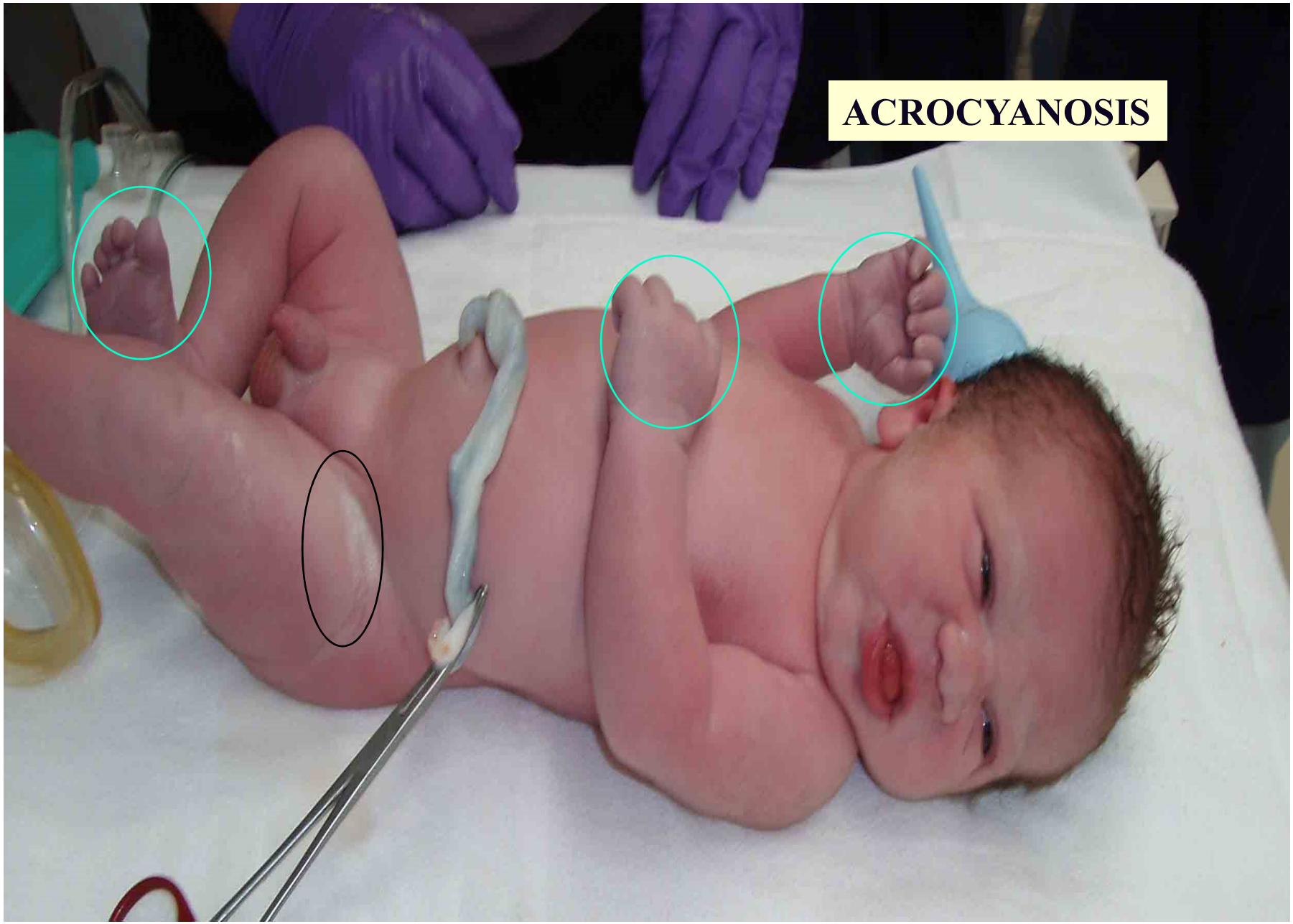


COLOR

- All infants at birth are normally pink to dark red in skin colour.

PHYSIOLOGICAL JAUNDICE

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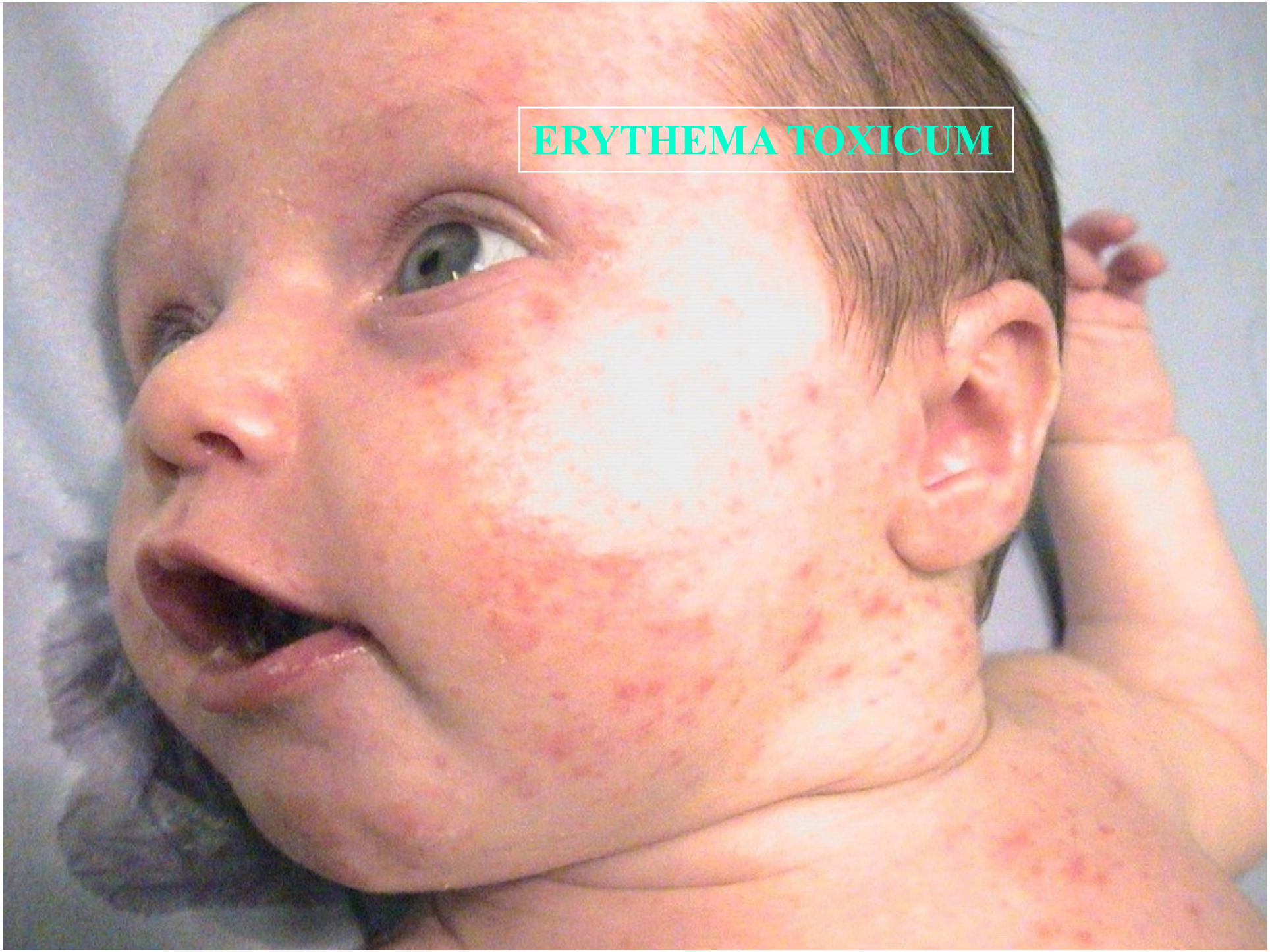
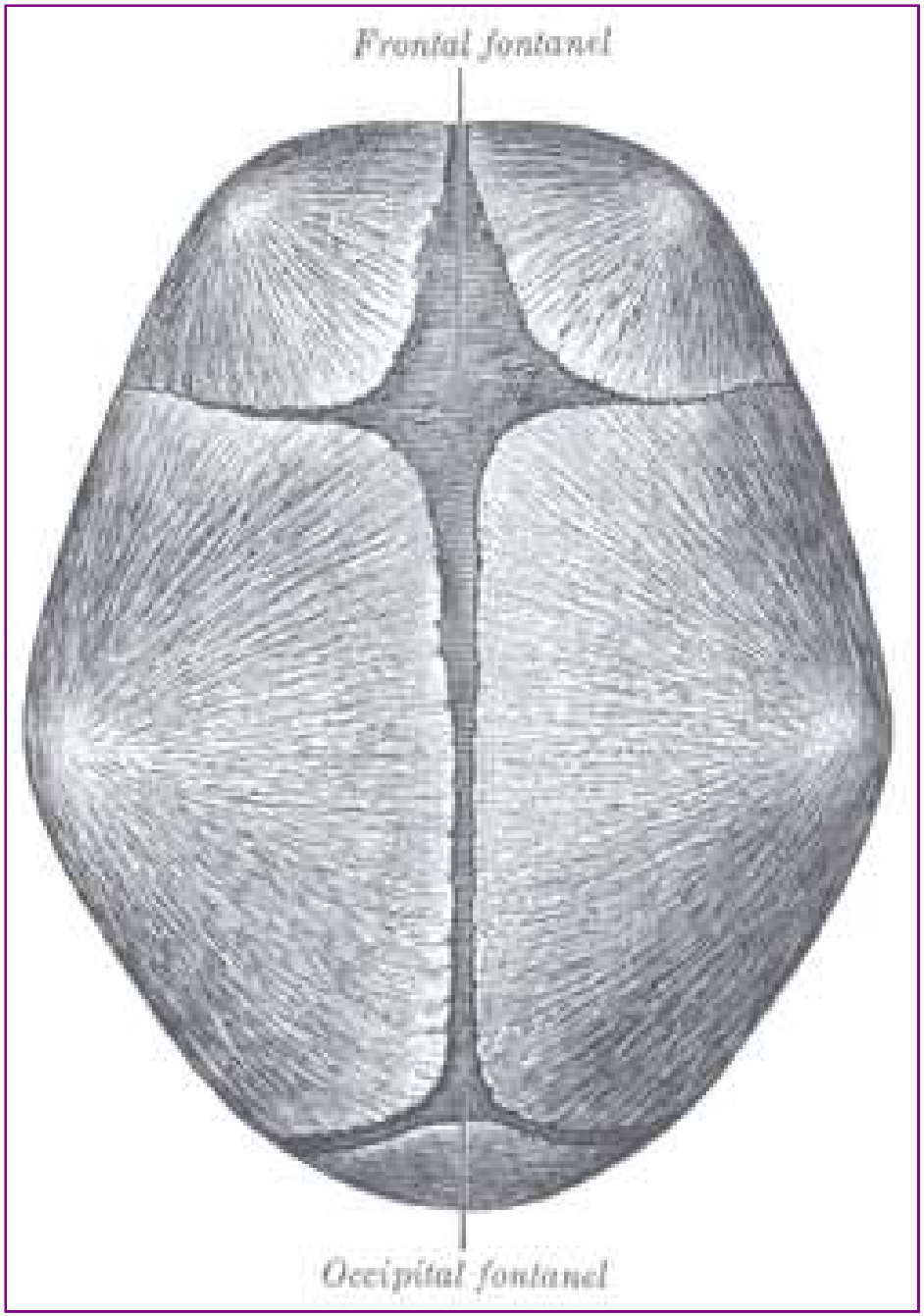

ERYTHEMA TOXICUM

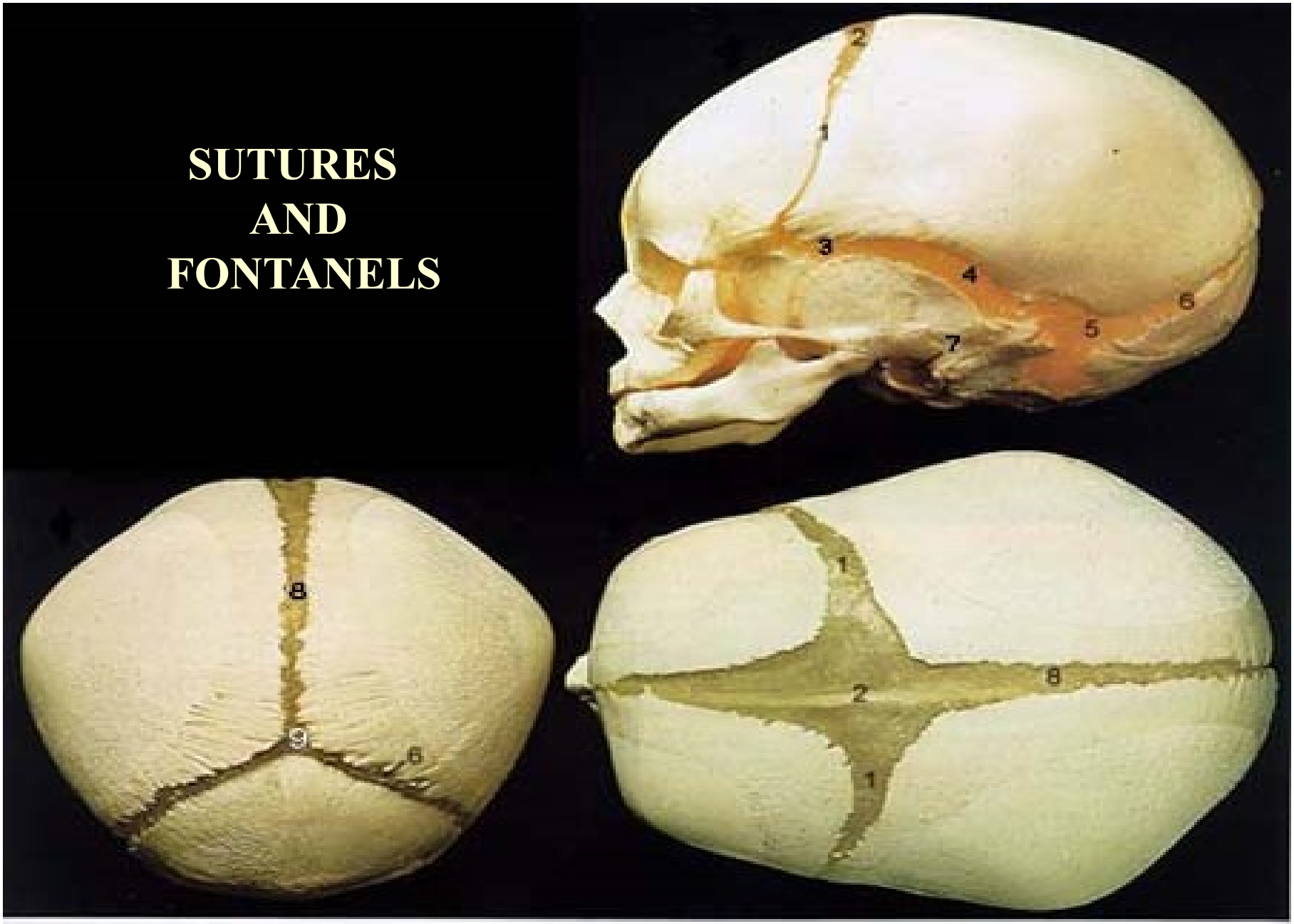
HEAD

- Sutures and fontanelles
- Head shape

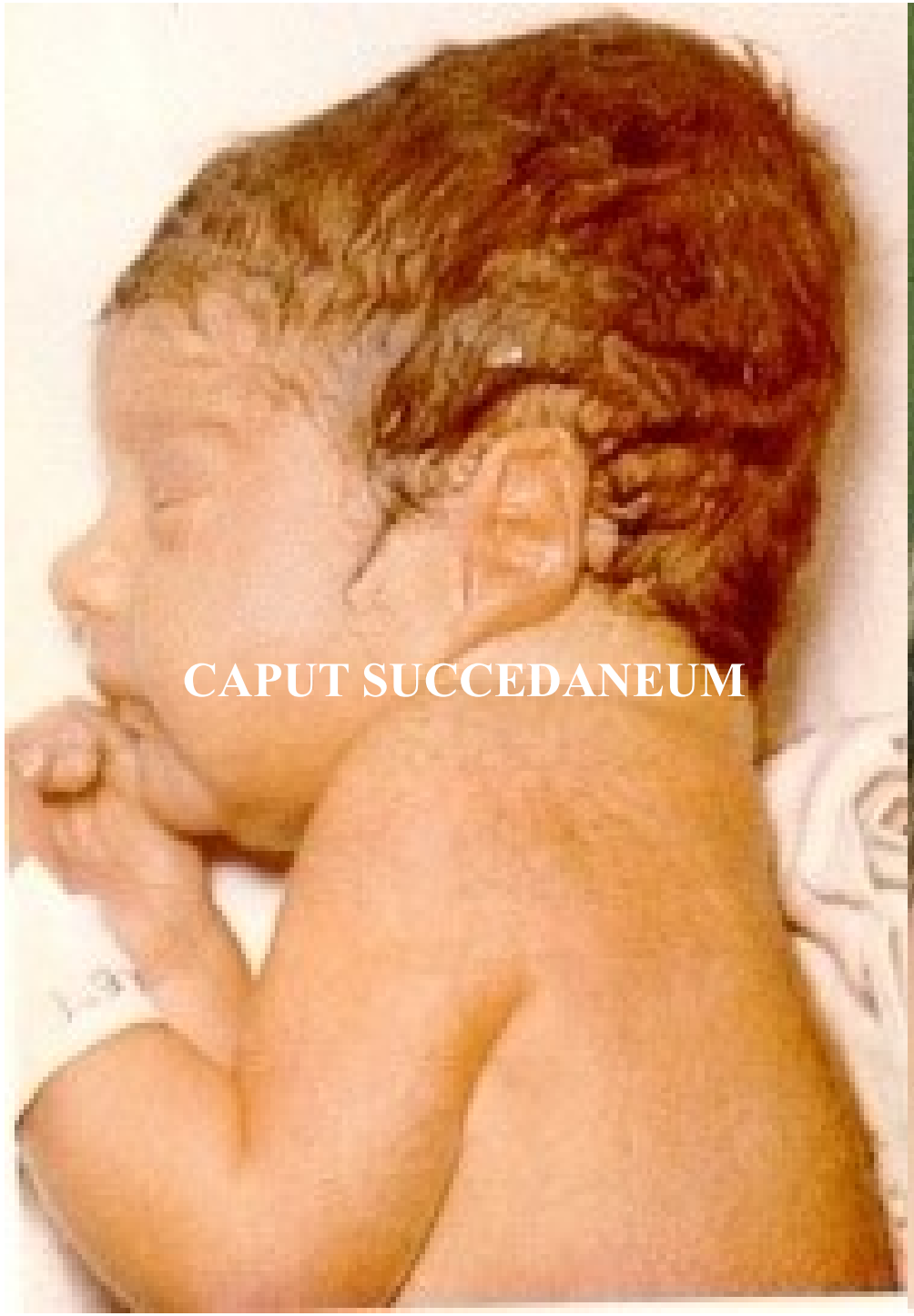


FONTANELS

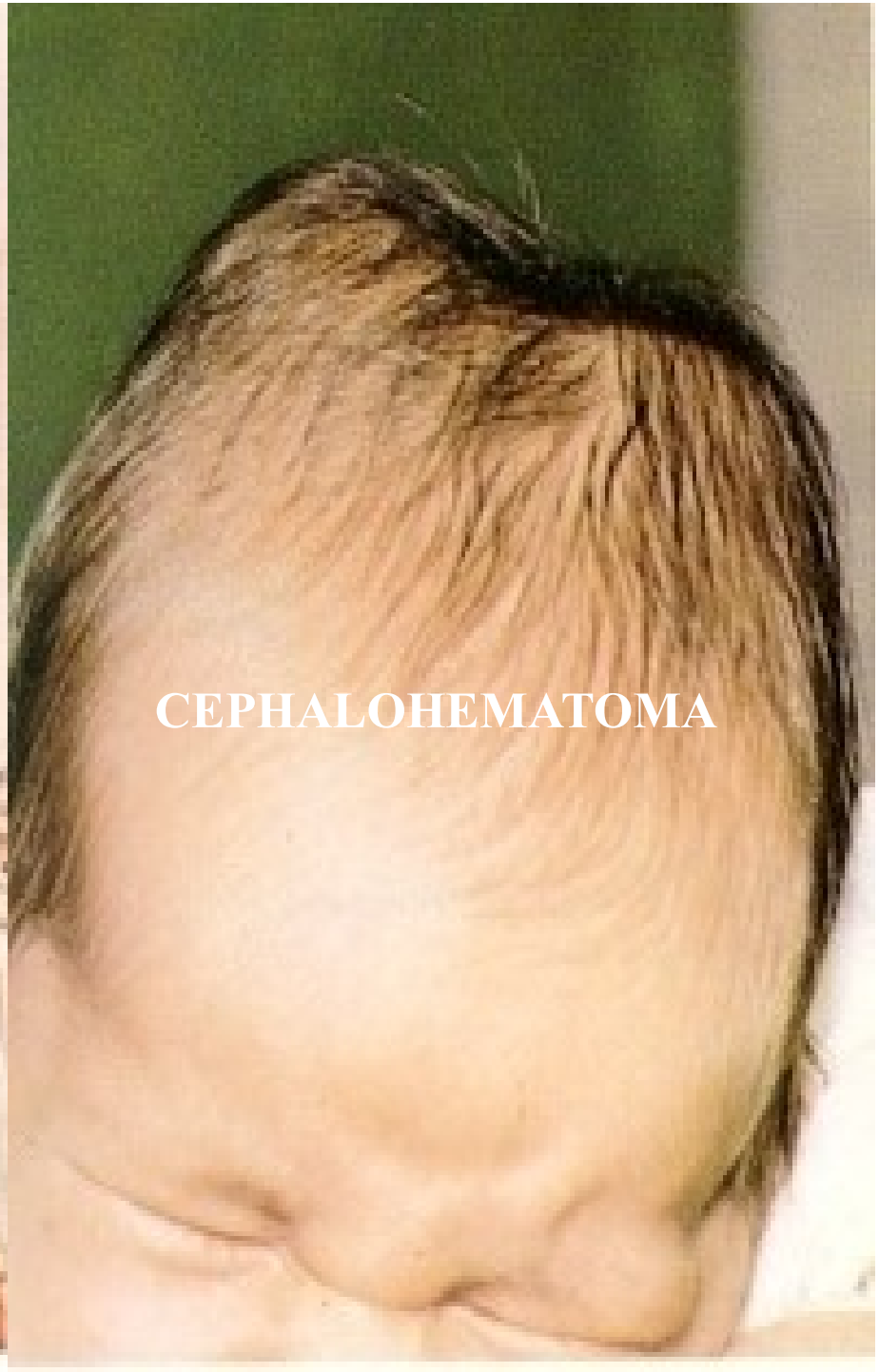
SUTURES AND FONTANELS



ANTERIOR FONTANEL	POSTERIOR FONTANEL
(i) KNOWN AS BREGMA	KNOWN AS LAMDA
(ii) SITUATED AT THE JUNCTION OF CORONAL, FRONTAL AND SAGITAL SUTURES	SITUATED AT THE JUNCTION OF LAMBDOIDAL AND SAGITAL SUTURES
(iii) KITE / DIMOND IN SHAPE	SHAPE- TRAINGULAR /
(iv) MEASURES 3-4 cm IN LENGTH AND 1.5-2 Cm IN WIDTH	MEASURES 0.5- 1 Cm AT ITS WIDEST PART
(v) CLOSES AT 1 ½ YRS (18 MONTHS)	CLOSES AT 1 ½ MONTHS (6 WEEKS)



CAPUT SUCCEDANEUM



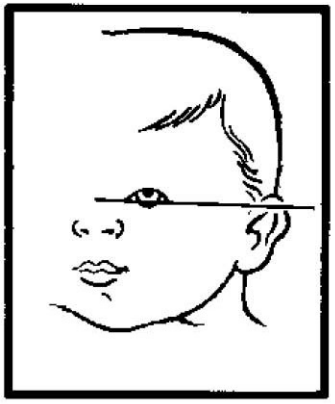
CEPHALOHEMATOMA

CAPUT SUCCEDANEUM	CEPHALOHEMATOMA
(i) SWELLING OR EDEMA OF THE PRESENTING PORTION OF THE SCALP	EFFUSION OF BLOOD B/W UNDER THE PERIOSTEUM AND SKULL
(ii) PRESENT AT BIRTH	NOT PRESENT BIRTH.SWELLING APPEAR AFTER 12 HRS
(iii) DOES NOT TEND TO ENLARGE	GROWS LARGER.
(iv) 'PIT' ON PRESSURE	DOES NOT PIT ON PRESSURE
(v) CAN CROSS SUTURELINES	DOES NOT CROSS SUTURELINES
(vi) INCREASES SIZE IF BABY CRIES	NOT INCREASES IF BABY CRIES
(vii) SPONTANEOSLY RESOLVES BY 36 HRS OF LIFE	PERSIST FOR WEEKS.

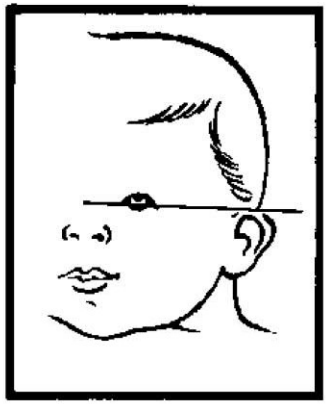
EYES

- Strabismus
- Eyelids edema present at birth & lasts 2-3 days.
- Crying is tearless.
- Subconjuctival /retinal hemorrage may present.
- Sclera is white/Transparent&clear ,iris is round.
- Absence of pupilary reflex –blindness.
- Fixed ,Dilated/Constricted pupil-Anoxia/Brain damage.

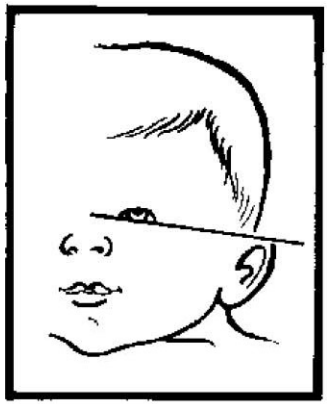
EARS



Normal ear



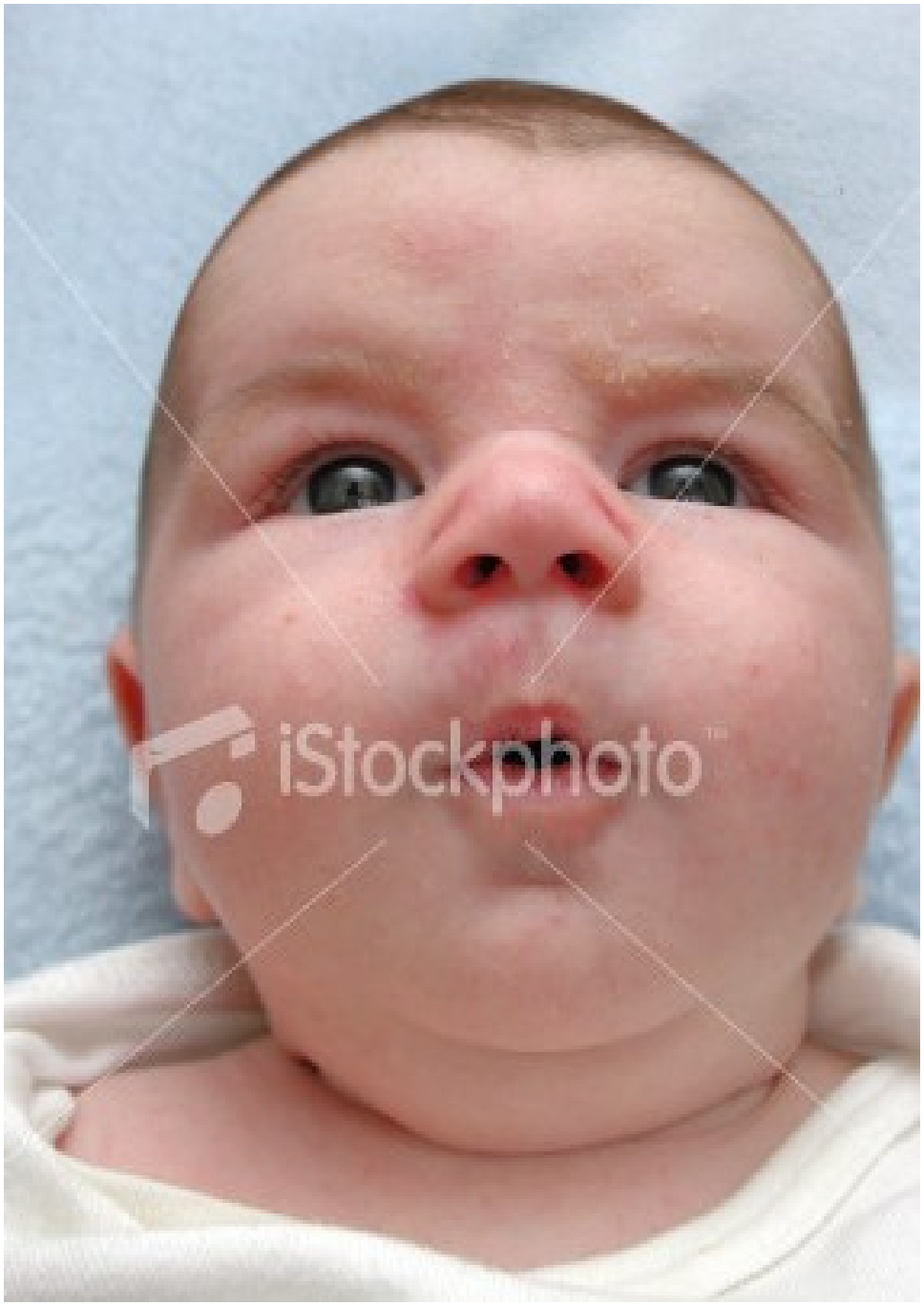
Abnormal angled ear



Low seated ear

EARS

- The location of the infants ear should be noted.
- The upper part of the ear should be on the same plane as the eye.
- Low set ears associated with certain chromosome anomalies and also with some congenital renal disorders.



NOSE

FLATTENED AFTER BIRTH

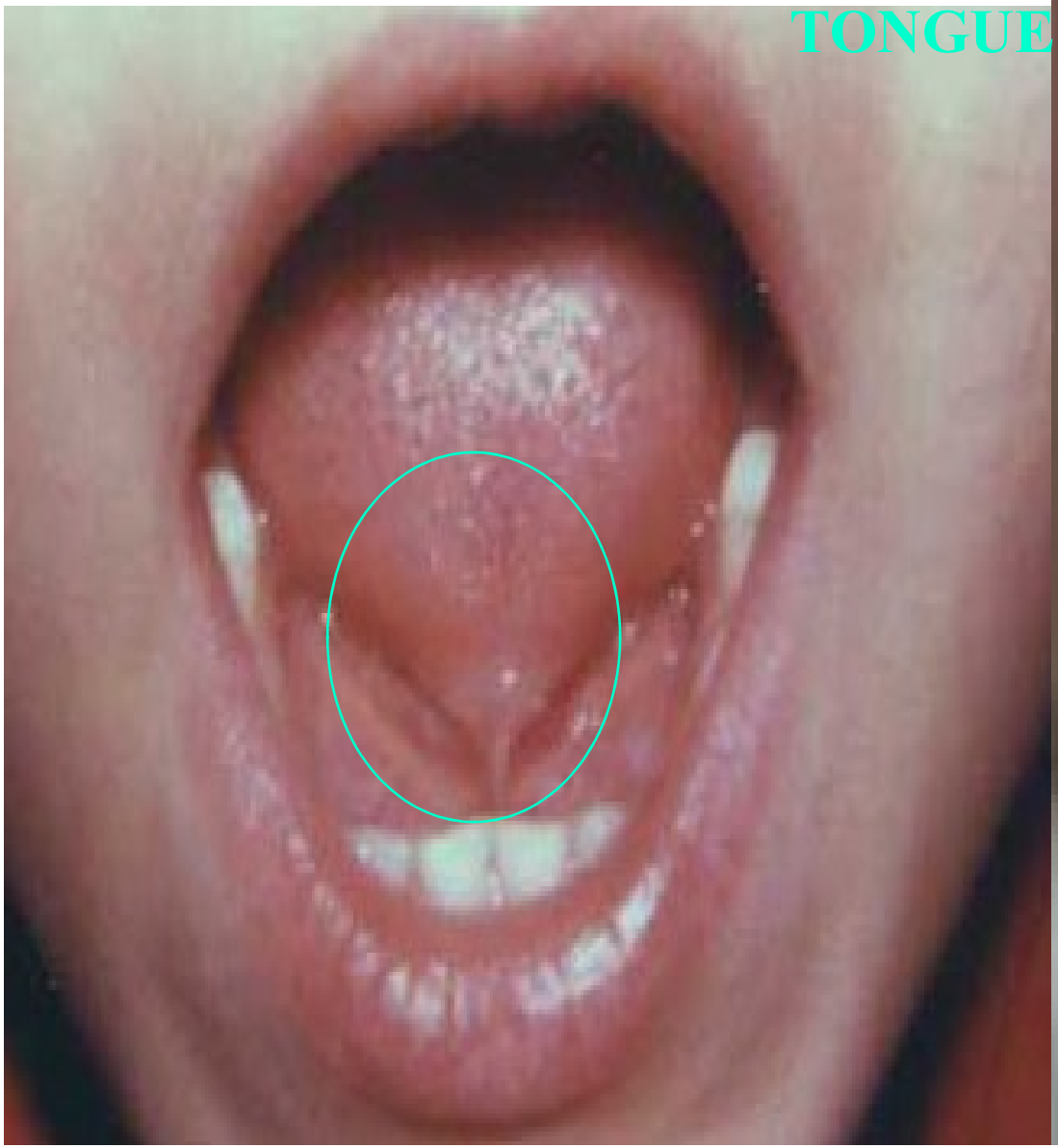
NOSE BREATHERS

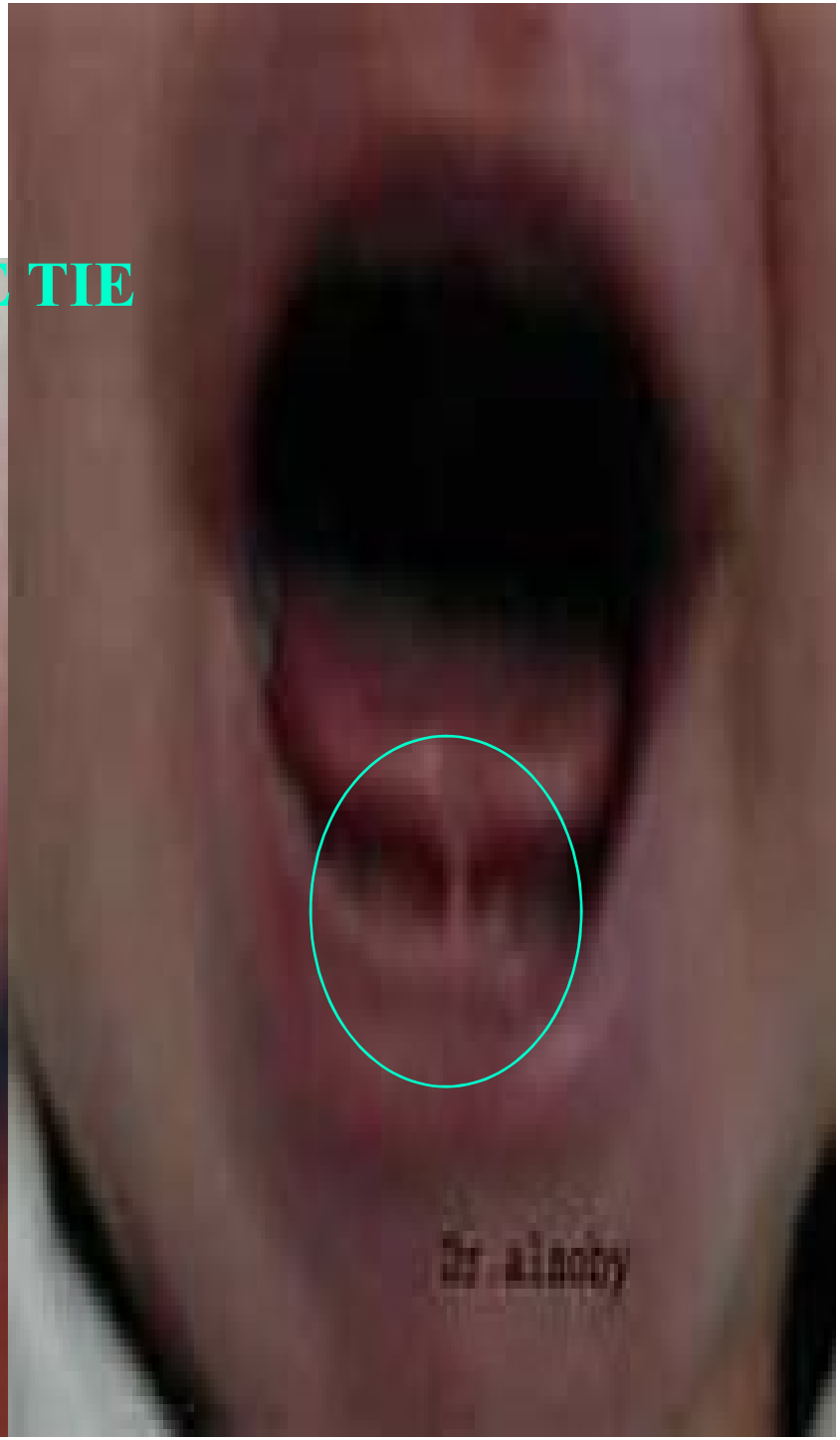
- Baby’s nose may appear some what flattened immediately after delivery.Sneezing and small amount of mucus are mormal.
- Copious discharge may indicate a tracheoesophageal fistula.

MOUTH

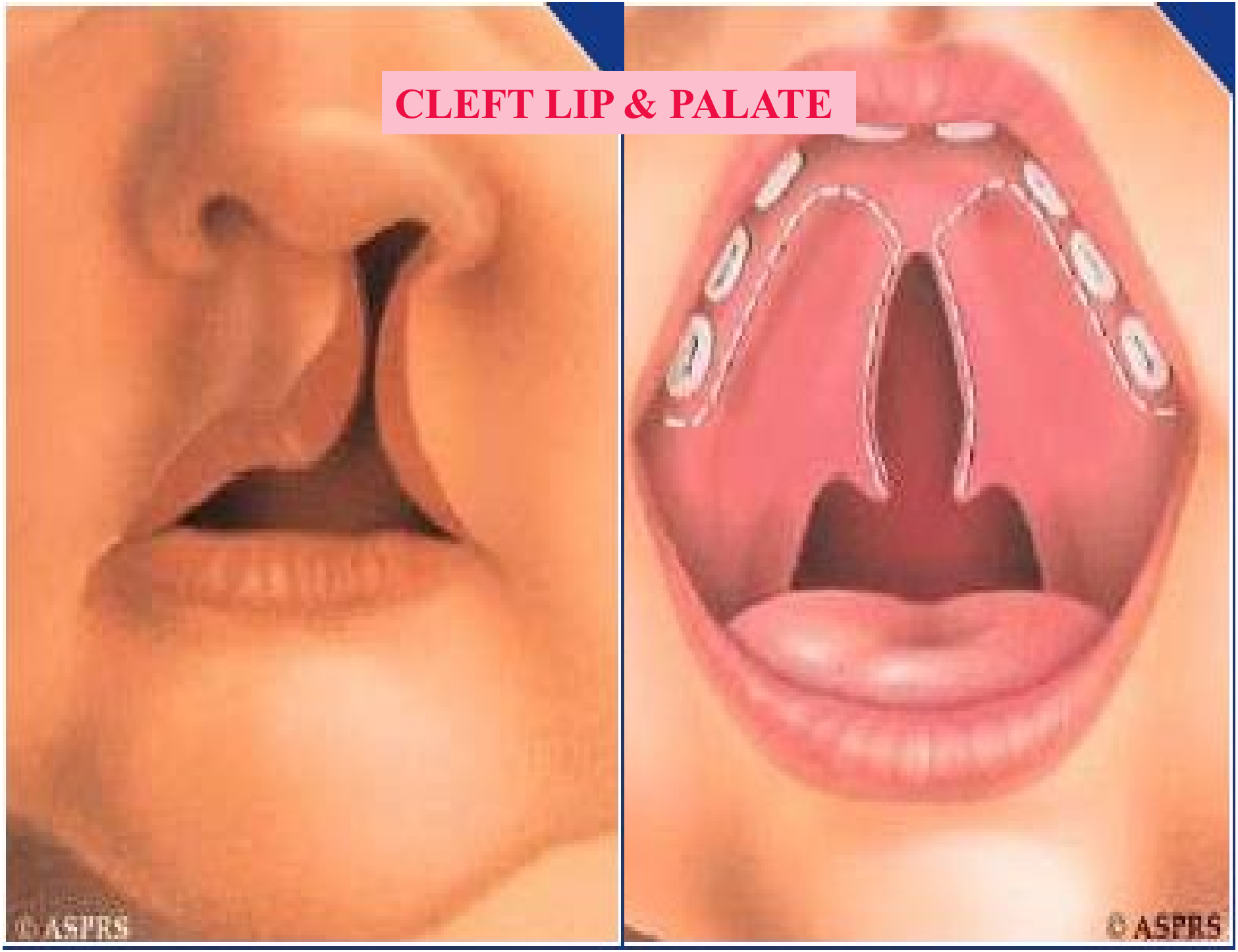
- A sucking blister on the upper lip is normal for a newborn infant ,as are epithelial pearls found on the hard palate.
- Epithelial pearls should be distinguished from thrush,a fungal infection caused by candida albicans.

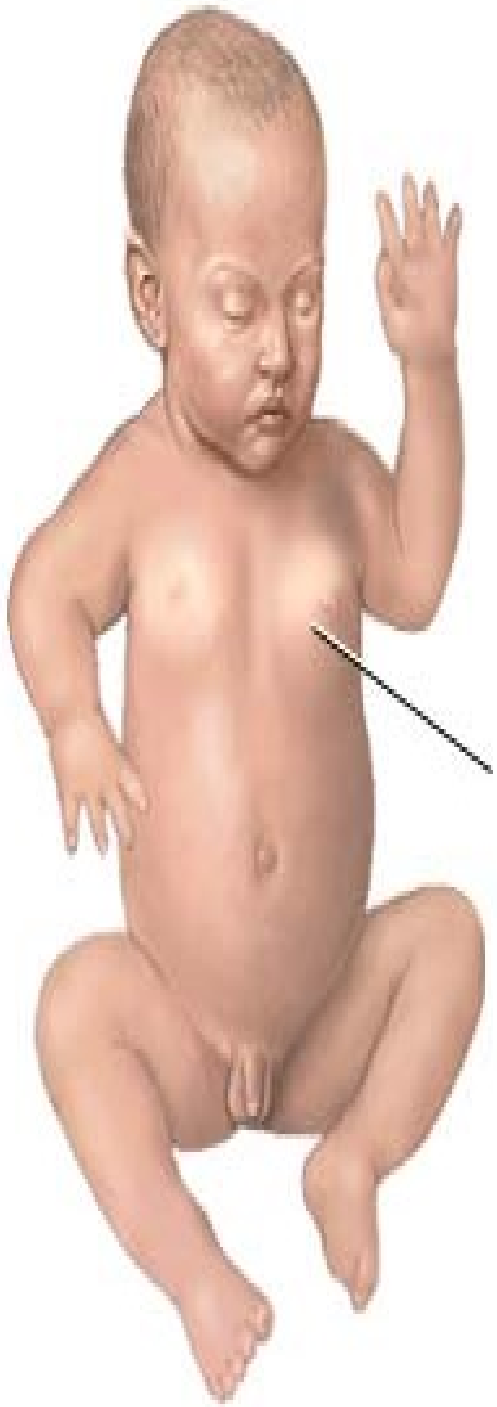
TONGUE TIE





CLEFT LIP & PALATE





Breast enlargement due to maternal hormones

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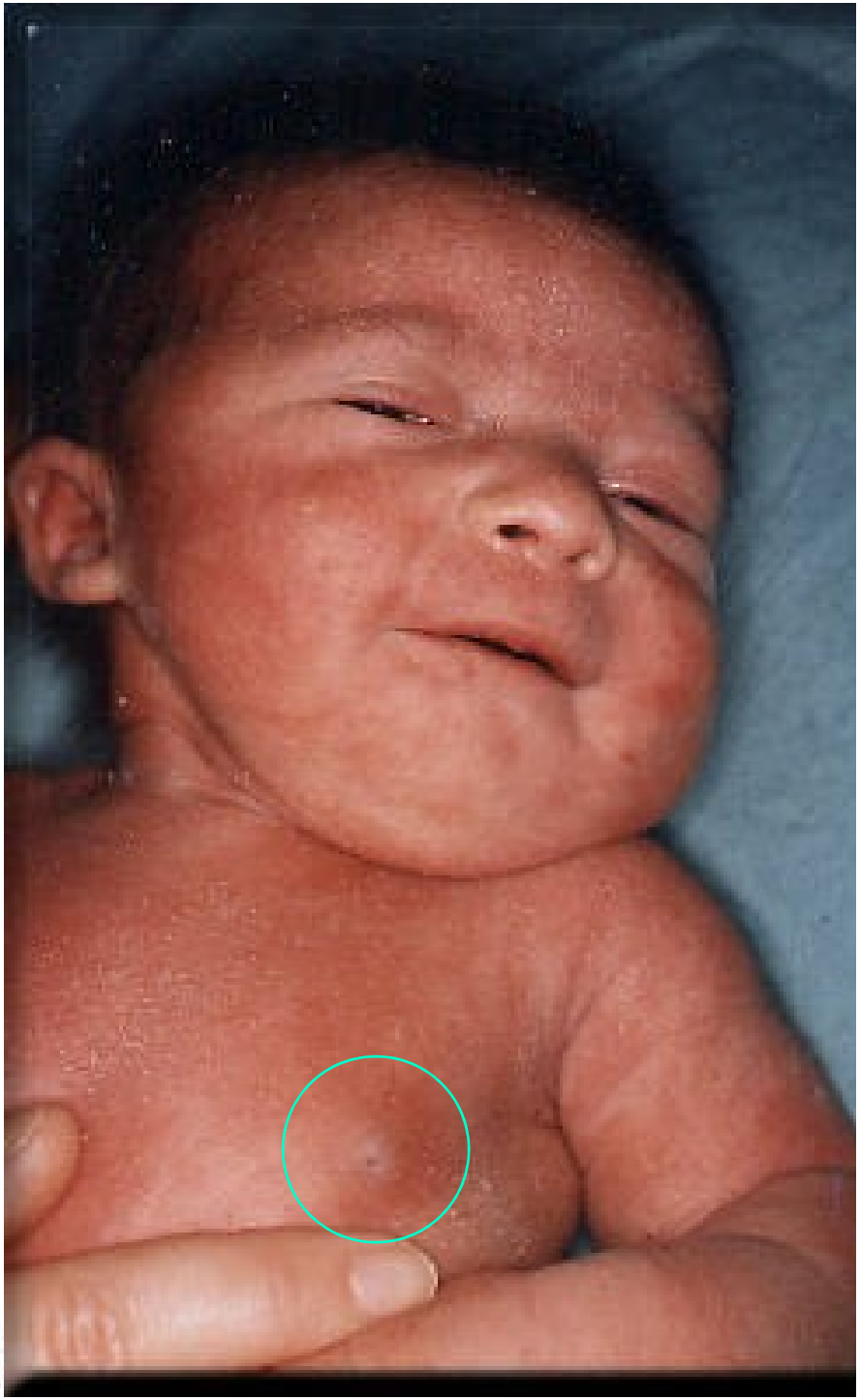
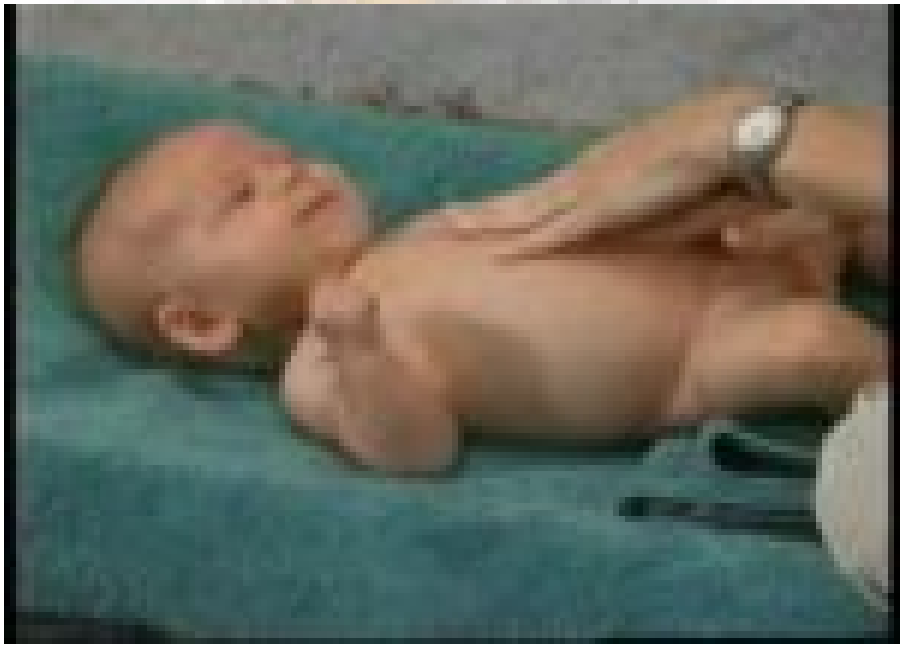


THORAX

- Breast engorgement is normally found in both male and female infants.
- Breast may secrete fluid resembling colostrum or milk for a period that may last from several days to several weeks.



ABDOMEN

AT BIRTH STOMACH HOLDS 1-2 OUNCES;
AT 2 WEEKS-3 OUNCES;
AT 5 MONTH- 7 OUNCES &
AT 10 MONTH - 10 OUNCES

BOWEL SOUND HEAR WITHIN 15- 20 mts AFTER BIRTH

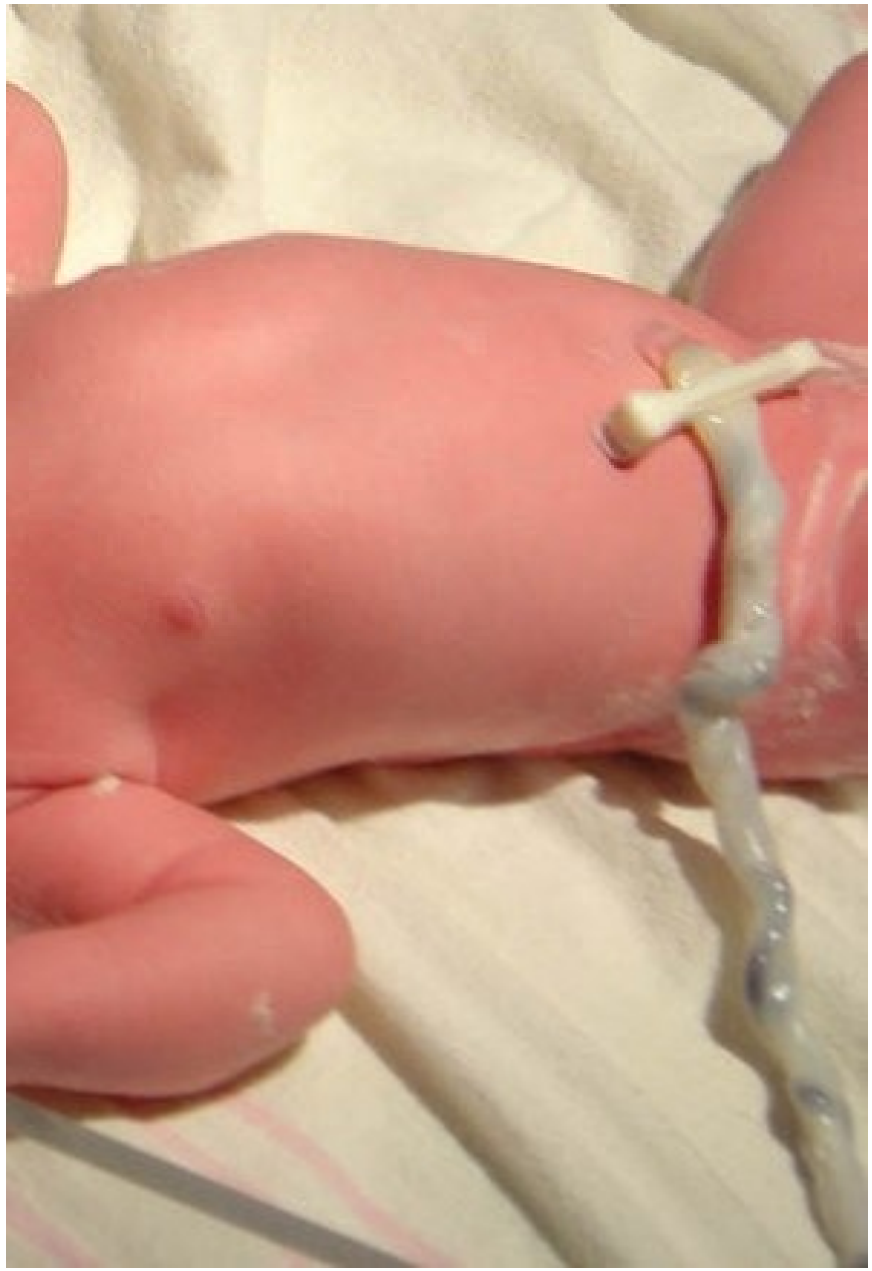
ABDOMEN IS ROUND& PROTRUDED

ABDOMEN

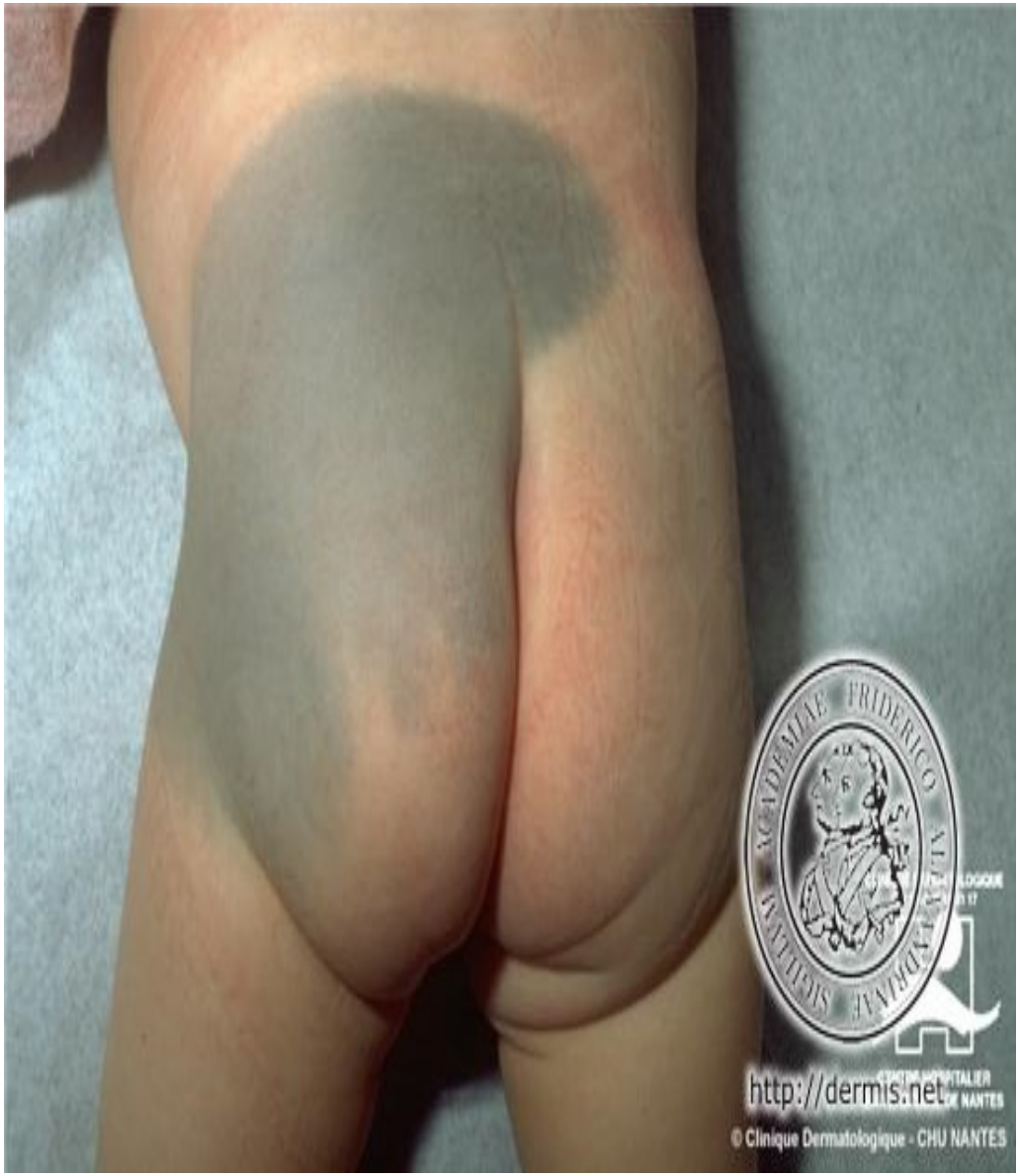
- Bowel sounds may be absent during the first 1-2 hrs after birth.
- Liver is palpated 2-3cm below the right costal margin.
- Femoaral pulse should be palpated .
- A distended abdomen is also abnormal .It is an additional sign of a tracheoesophageal fistula.

Umbilical cord

- Bluish white.
- Gelatinous.
- 2arteries &1 vein present
- Sloughs off by 6-10 days



ANOGENITAL AREA



- Infant buttocks are plump and firm.
- No redness/fissure in anus.
- Uretharal opening at the tip of the penis.
- Sometime urethral opening covered by prepuce or foreskin.
- Tight prepuce is common & should not be retracted.

Genitalia

- Female Genitalia:-
- Red and swollen.
- During first week of life vaginal discharge is thick,white.
- Blood tinged about the 3rd or 4th day.

- Male Genitalia:-
- Foreskin is adherent to the glans penis at the time of birth.
- Scrotum is frequently swollen ,this edema disappears in a few days .
- Hypospadias .
- Epispadias.

SKELETAL

- Bones are soft.
- Back is straight $ flat in prone position

- Inspect & Examine –Neural tube defect, symmetry of extremities, feet for talipes anamolies (talipes equinovarus, talipes calcaneovalgus).
- Syndactyly.

NEUROLOGIC ASSESSMENT

- Neonatal reflexes:-Assessment of the reflexes provide valuable information about an infant's neurologic status.
- Generalized illness and medication given to the mother during labo affect neurologic status.

Cont….

- Moro’s Reflex
- Sucking Reflex
- Rooting Reflex
- Palmer Grasp
- Plantar Grasp
- Babinski Reflex
- Stepping Reflex
- Tonic Neck Reflex

Neonatal Behavioral State

Exhibit five different state
1.Quite /regular sleep
No muscular movement
Regular respiration
Eyelid closed

2.REM/Active sleep
Minimal muscular movement
Irregular respiration
Eyelids closed
Rapid eye movement

3.Quite alert ,no muscular movement,eyelids open.

4.Active alert obvious mus.movement ,eye lids open,no
Fussing.

5.Crying
Fussing
Eyelids closed/Opened

Brazelton Neonatal Behavioural Assessment

- It can be used as a diagnostic tool for neurological impairement or to teach parents the unique social and interactive capabilitiesof their newborn.
- The scale is diagnosed for infants from birth to 1 month of age.

Neuro behavioural cues

- Infant demonstrate neurobehaviuoral cues that reflect their organizational ability and the readiness for interaction.
- Infant smiling indicate good organization and is ready to participate in an interation.
- Distress cues indicate the infants lack of organization .
- Be sensitive and alert to infants cues.
- If the infant shows distress cues,cease the interaction and provide interventions that

RESEARCH FINDINGS

SUMMARY

- So today we have discussed about:

✓Physical assessment

✓Apgar score

✓Assessment of growth

✓Assessment of Gestational age

✓Mortality Risk Assessment

✓Neurologic assessment

✓Behavioural assessment

CONCLUSION

- Assessment of the neonate is a critical function of the nurse immediately after birth ,on ongoing periodic basis during the early days after birth. and thereafter as needed during well baby examinations or if the infant is ill.

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Thank you

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thank
you