



STAFF NURSE

NATIONAL RURAL HEALTH MISSION

DEPARTMENT OF MEDICAL, HEALTH & FAMILY
WELFARE RAJASTHAN

VOLUME – 4

PAEDIATRIC, MIDWIFERY
& GYNAECOLOGY NURSING



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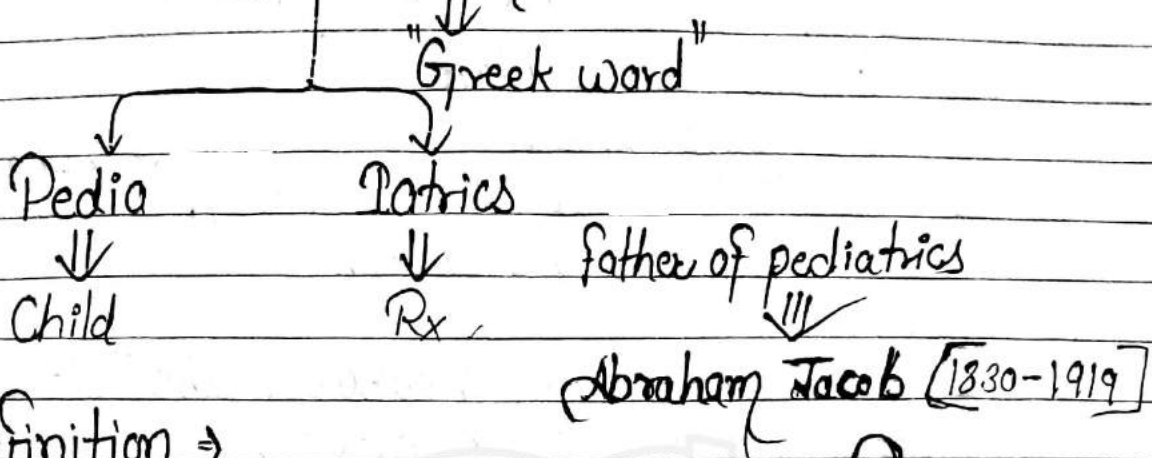
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"PEDIATRICS"



* Definition ⇒ Pediatrics is a branch of medicine that deals with medical care of different each group from 0-18 years of age.

* Care of Newborn ⇒

① Assessment ⇒

(i) Assess for initiation of Respiration.

(ii) Assess for Respiratory Distress ⇒

* Nasal Flaring (नसोंका फूलना)

* Intercostal Retraction

↳ (skin goes in the ribs because air hunger in the lungs)

* Grunting sound

* Tachypnea

Extra Note ⇒ Hyperpnea ⇒ ↑ se depth of respiration because of ↑ se tidal volume.
Normal newborn Tidal volume ⇒ 10-15 ml/kg body weight

(iii) Assess for any gross Congenital Abnormality.

Eg →

* Cleft lip & palate

* Hydrocephalus

* Abdominal wall defect Eg → Omphalocele
Gastroschisis

* Neural tube defect

If Newborn pt. in neural tube defect → pt. give positioning → To prevent Injury.

Intervention ⇒

① Suctioning ⇒

Suctioning for mouth & nose
Because of removal of Amniotic fluid

1st suctioning of Mouth ⇒ Because stop the sneezing Reflex.

2nd If 1st suctioning of nose → stimulate the sneezing reflex → Because Aspirate Amniotic fluid

(Because foreign body enter in upper air-way stimulate sneezing Reflex)

(foreign body enter → irritation) Eg → pneumonia

↓ Create the disease condition

Normal suctioning pressure ⇒

Adult ⇒ 100-120 mmHg

Time → 10-15 sec.

Newborn blood \rightarrow 80ml/kg
(at Birth)

More than 10-15 dec. (O₂ deficiency)

\downarrow
Hypoxia
Hypo-xemia
Cyanosis } \rightarrow Create
Condition

Term Newborn suctioning pressure \rightarrow 60-80 mmHg
Time \rightarrow 10-15 dec.

preterm Newborn \rightarrow 40-60 mmHg Never more
than 10 dec. Because of
(Before 37 wk of Gestation week) chances of cyanosis.

\Rightarrow If suction devices is not available we can use asepto syring \rightarrow Go

\Rightarrow Asepto Syring made By Rubber.

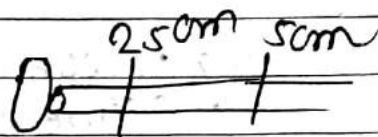
② Umbilical Cord Cutting

Omphalitis \Rightarrow Infection or Inflammation of umbilical Cord.

\Rightarrow two Kochers Forceps are used for cord clamping
& Scissors or surgical blade is used for cord cutting.

Ist clamp at the distance \rightarrow 2.5 cm from the umbilicus of newborn

IInd clamp at the distance \rightarrow 5 cm from the umbilicus of newborn



Then cut in between these two clamps.

\Rightarrow Kocher's Forceps also use \rightarrow Artificial Rupture of membrane (ARM)

* If the newborn is preterm then 8cm of umbilical cord should be left because preterm newborn is high risk baby.

③ Dry the newborn with a prewarmed liner because prevent the Hypothermia from conduction-mechanism

(Heat loss air movement)

Note \Rightarrow

Temp. \Rightarrow Higher consistency concentration \rightarrow Lower consistency concentration

Amniotic fluid removed \rightarrow Evaporation mechanism

Acute Flaccid Paralysis $\xrightarrow{\text{Found in}}$ Polio disease condition

(4) Identification

Identification Band \rightarrow

Blue \rightarrow Boy
Pink \rightarrow Girl

(5) APGAR Scoring \rightarrow

APGAR word given by \rightarrow Dr. Virginia APGAR (1952)

A \rightarrow Appearance (Skin color)

P \rightarrow Pulse (Heart Rate)

G \rightarrow Grimace (Reflex)

A \rightarrow Activity (Muscle Tone)

R \rightarrow Respiration Efforts.

* Maximum score \rightarrow 10

* Minimum score \rightarrow 0

APGAR score checking \rightarrow 1 min. or 5 min

Features	0	1	2
① Skin colour	Full Body Pink	Body pink Extremities Blue (Acrocyanosis)	Full Body pink
② Heart Rate	Absent	<100	>100
③ Reflex	No Response	Grimace (Hypoactive) Reflex	Full cry
④ Muscle Tone	Flaccid	Some Flexion of feet Extremities	Full body flexed
⑤ Respiration Effort	Apnea	Slow Irregular	Normal Regular

Intervention

① No/Mild Distress \rightarrow 8-10 \rightarrow Routine Care

② Moderate Distress \rightarrow 4-7 \rightarrow Stimulation (Sole ^{Flank} + Back ^{Rubbing})
O₂ administration

③ Severe Distress \rightarrow 0-3 \rightarrow Immediate Resuscitation

Q As a nurse you are assessing a newborn whose Heart Rate \rightarrow 150 B/min
Respiration \rightarrow Regular
Some flexion of extremities + Acrocynosis

Ans 6

\Rightarrow In newborn Baby Respiratory distress \Rightarrow IN
newborn not dyspnea because subjective symptom.

\Rightarrow Extra Note \Rightarrow

Adult Respiratory Distress \Rightarrow

Tachypnea
Dyspnea
Late cyanosis

* Vital Signs

- ① Heart Rate \Rightarrow 120-160/min
180 \rightarrow During Cry } Normal
80-100 \rightarrow During Sleep
- ② Respiration \Rightarrow 30-60/min (assess for full 1 min)
- ③ Temp. \Rightarrow 36.5°C - 37.5°C
- ④ B.P \Rightarrow Systolic \rightarrow 60-80 mmHg
Distolic \rightarrow 40-50 mmHg

Newborn Cardiac Output \Rightarrow 480-500ml

Q # Newborn Blood volume \Rightarrow 80ml/kg
Hb \Rightarrow 18-20

\Rightarrow In newborn baby Height is not measured because newborn baby is not standing. \therefore than length is measured.

* Body Measures ⇒

① Length ⇒

Measures By → Infantometer

Normal → 50 cm

Average → 45-50 cm (13.5-14 inches)

② Head Circumference ⇒ 33-35 cm (34 cm) occipital Bone

③ Chest circumference ⇒ 30-32 cm. (At the nipple of newborn)

④ Abdominal circumference ⇒ (31-33 cm)

↳ (slightly extra compare to chest circumference)

⑤ Mid upper arm circumference ⇒ 11-12 cm

⑥ Breast feeding ⇒

Normal vaginal delivery → Breast feeding should be started in ½ hour

C.S. delivery → Breast feeding should be started in 4 Hour

If Given vit. k injection → After delivery

Chemical name → Phytomenadion
Menadion

Because formation of clotting factor (Liver)

Clotting factor → 2, 7, 9, 10

⇒ Ampul → 0.5 ml contains → 1 mg

Dose ⇒ 1 mg given to Intramuscular Route

(Thiges Muscle)

(In vastus lateralis muscle)

* Warfarine → Anticoagulant → vitamin K.
Drug
(oral Drug)

Extra Note ⇒

⇒ Bacteria E-coli normally present in the intestine because the formation of vit. k + digestion

⇒ Birth Asphyxia ⇒ Failure to initiate + maintain Proper Respiration.

* PHYSICAL EXAMINATION OF NEWBORN

① Head Examination ⇒ Head circumference Routine checkup age 3yr.

* Head circumference = 33-35 cm

* Head length = $\frac{1}{4}$ part of total body length (12.5cm)

Moduling ⇒

⇒ Overlapping of fetal ~~bone~~ skull bone for passing from pelvic easily.

⇒ Moduling is a normal condition.

* Assess for moduling It resolves within 72 hours

Eg → Sutures
↑ Gomphosis

Extra Note ⇒

* Type of Joint mainly 3 ⇒ (1) Fibrous Joint
Ribs ← (2) Cartilage Joint
Symphysis pubis (3) Synovial Joint

⇒ Sutures are Fibrous joints.

* Suture ⇒ widely separated sutures. Suture is a joint b/w skull

(1) * Frontal (1) suture Bones.

(2) * Coronal (2) suture ⇒ b/w parital + frontal bone

(3) * Sagittal (1) ⇒ b/w two parital bones.

(4) * Lambdoid (2) ⇒ B/w parital + occipital Bone

* Assess the fontanelles.

* fontanelles ⇒
(wide gap b/w sutures.)

Total No. of fontanelles ⇒ 6

- (1) Anterior fontanelles (1)
- (2) Posterior fontanelles (1)
- (3) Mastoid fontanelles (2)
- (4) Sphenoid fontanelles (2)

Anterior fontanelles	Posterior Fontanelles
① Also known as Bregma	① also known as Lambda
② Formed of 4 sutures:- (1) Frontal → 1 (2) coronal → 2 (3) Sagittal → 1	② Formed of 3 sutures (1) sagittal → 1 (2) Lambdoidal → 2
③ Shape → Diamond	③ Shape → Triangular
④ Diameter ⇒	④ Diameter ⇒
(A) Antero-posterior = 3-4 cm	(A) Antero-posterior → 1.2 cm
(B) Transverse → 2-3 cm	(B) Transverse → 1.2 cm
⑤ fuses → 12-18 month of age	⑤ fuses → 6 wks of age

⇒ Fontanellus are Soft and Flat.

Depressed Fontallus → Indicate → Dehydration

Bulging Fontallus → Indicate → ↑ed Intra-cranial pressure.

"BIRTH TRAUMA"



Swelling of Head.

Birth Trauma are :-

(1) Caput Succedaneum

(2) Cephalo Hematoma

Birth Trauma

① Caput Succedaneum	② Cephalo Hematoma
↓	↓
<p>Def. ⇒ It is swelling of soft tissue due to improper venous drainage</p>	<p>* It is Rupture of minor veins due to friction b/w fetal skull & bone pelvis.</p>
<p>* It always present at the time of Birth</p>	<p>* It never present at the time of Birth usually develop within few hours.</p>
<p>* It accumulation of fluid b/w periosteum of bone + scalp scalp</p>	<p>* It is collection of blood b/w Bone + its periosteum</p>
<p>* It can cross suture line</p>	<p>* It can not cross suture line</p>
<p>* It is soft & compressible</p>	<p>* It is Hard and incompressible</p>
<p>* Self Resolves with in 72 Hours</p>	<p>* May Resolve within 6wk and if not resolved than incision + drainage should be done.</p>

② Eye Examination

Eyes should be their any redness or purulent discharge indicates infection in the eye.

① Ophthalmia Neonatorum ^{eye} → Infection occurs in the newborn when the mother is infected to Neisseria gonococci
↳ (cause Bacteria)

⇒ Eyes should be symmetrical

PERRAL Examination (Pupil examination)

P → Pupil

E → Equal

R → Round

R → Reactive to (Dilate + Contract)

L → Light +

A → Accommodation (Adjustment)

⇒ There may be cross eyes in a newborn that is normal due to weak to extra-ocular muscles

⇒ Red Reflex is present and absence of red reflex indicates →

① Congenital cataract

② Retinoblastoma