

INFANTICIDE

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INFANTICIDE

- Infanticide means unlawful destruction of an infant less than one year of age.

Predisposing factor

- ILlegitimate pregnancy
- Inheritance
- Poor parents
- Female feticide

INFANTICIDE

- Infanticide means killing of an infant within one year of age.
- **“Hence ,it is obvious that in a case of infanticide the matters to be proved are”**

????????????

- Whether the foetus was born alive or dead born ?
- Whether it was viable when born
- Whether it had separated existence for sometimes.
- That the cause of death was neither natural nor accidental but was due to some deliberate act of commission or omission
- That the dead infant examined belonged to the woman charged for commission of the offence of infanticide

Whether the foetus was born alive

- Viability : capacity to lead a separate life outside the body of mother, depends on many biological and physiological factors.
- The acceptable age of viability of a foetus is 210 days.

Whether it was viable when born

Two other condition of newly born foetuses are recognised, when they are not born alive.

These are:

1. Still born foetus
2. Dead born foetus

STILL BORN FOETUS

- According to WHO- “a still born child as one, which has issued forth from the mother , after 28 wks of pregnancy and didn't at any time after being completely expelled, breathe or show any sign of life”
- In contrast to general conception, some still born foetuses may show signs of respiration, when they are still in the vagina or uterus.
(**Vagitus vaginalis or Vagitus uterinus**)
- Frequency of still birth rate is calculated as 1 in 18 births.

Medico legal aspects of still birth

- Charge of infanticide will not stand in still birth cases.
- In India, killing after live birth is considered as **murder (302 IPC)** and to prevent live birth under **315 IPC**.

DEAD BORN

- Death of a foetus inside the uterus.

Sign Of Dead Born Foetus

1. Rigor mortis

2. Intrauterine maceration (**Autolytic decomposition**)

Overlapping of skull bones (**Spalding sign**)

Soft tissue oedema: skin >5 mm

3. Intrauterine mummification

4. Putrifaction

Gas shadow in foetal heart & vessels (**Robert's sign**)

LIVE BIRTH

The foetus is alive, complete birth?

OR

at least one part of its body comes out of the mother's body?.

Sign Of Live Birth As Recognised By Civil Law

- a. Crying of the baby- Vagitus vaginalis and Vagitus uterinus.
- b. Movement of any part of body
- c. Sneezing and yawning
- d. Heartbeat

Sign of Live Birth

(As Recognised By Criminal Law)

External Signs :

1.Shape of chest and its measurements:

Increase AP diameter and circumference

2.Changes in skin

□ **Colour** -bright red at birth

Brick red- 2nd to 3rd day

Yellowish -3rd to 6th day

Normal-7th to 10th day

□ **Desquamation of skin** -begins over abdomen by 2nd day and is completed by 3rd to 4th day

□ **Vernix caseosa**

Sign of Live Birth

(As Recognised By Criminal Law)

3. **Caput succedaneum:**

4. **Cephalhaematoma:**

5. **Change in the Umbilical cord:**

- **Cut margin dries up by about 2 hrs.**
- **The cord dries up about 24 hrs.**
- **Red ring appears around umbilicus on the 2nd day.**
- **Cord falls off by 4th -5th day and complete healing of the surface occurs.**

B. Sign of live birth and separate existence in dead infants

Internal Examination

1. Position of highest point of **diaphragm** goes down from 3rd- 4th ribs to 6th / 7th ribs.
2. Examination of **lungs**
 - **Ploucquet's test.**
 - **Hydrostatic test.**
 - **Histological examination of the lungs.**

| Character | Unrespired Lungs | Respired Lungs |
|--|--|--|
| Weight in relation to body weight | 1/70 | 1/35 |
| Volume | Small | Large and covers the heart |
| Consistency | Liver Like: Dense firm non crepitant | Soft, spongy, elastic, Crepitant |
| Extension | Up to the level of 4 th and 5 th rib | Up to the level of 6 th and 7 th rib |
| Specific gravity | 1.04 | 0.94 |

| | | |
|-----------------------------------|--|--------------------------------|
| Margin | Sharp | Rounded |
| Color | Uniform reddish | Mottled/ marbled appearance |
| Air vesicles | Not inflated | Inflated |
| Section | Little froth less blood exudates on pressure | Abundant frothy blood exudates |
| Breslau's second life test | Whole or part sinks in water | Expanded parts or whole floats |
| Microscopy | Cuboidal lining | Squamous Epithelium |
| Blood vessel | Less patent | More Patent |

B. Sign of live birth and separate existence in dead infants

3. Findings in the stomach and intestine-

- **Breaslau's second life test.**
- **Demonstration of air in x ray.**
- **Presence of milk / honey in stomach.**

4. **Meconium** - large intestine is completely free of meconium within **24 hrs** after birth.

5. Change in the heart-

closure of foramen ovale occurs within **3 months** after birth.

B. Sign of live birth and separate existence in dead infants

6. Change in **blood vessels-**

- **Umbilical arteries** – start contracting within **10 hrs** after birth and obliteration completed by **3rd day**.
- **Umbilical vein** -start contracting by **2nd to 3rd day** after birth and completely obliterate by **4th to 6th day**.
- **Ductus arteriosus** starts to obliterate by **2nd to 3rd day** after birth and completed by **7 to 10 days**.
- **Ductus venosus-** starts to obliterate by **3rd to 4th day** after birth and completed by **10 days**.

B. Sign of live birth and separate existence in dead infants

7. **Incremental line in the enamel** of the teeth-one of the **surest sign** of live birth.
8. Air in the **middle ear**.
9. Presence of some **ossification centres** e.g. at the lower end of radius, heads of humerus and femur and capitulum of humerus.
10. Changes in the **blood**-
 - **Nucleated RBC** is absent in peripheral circulation with in **24 hrs**.
 - **Foetal haemoglobin** 55 % to 60 % at birth.
11. **Closure of fontanelle**.

Cause of Infant death

A-Natural

B-Accidental

C-Criminal

Natural causes :

- Prematurity
- Asphyxia
- Birth trauma
- Congenital malformation
- Haemolytic disease
- Neonatal infection
- Early separation of placenta
- Pre - eclamptic toxemia in mother
- Infective condition during infancy
- Sudden infant death syndrome

Accidental causes during birth:

- Injury to mother on her abdomen
- Prolapse of cord
- Prolonged labour
- Twisting of cord around neck
- Premature separation of placenta.
- Mother's death.

Accidental causes after birth :

- ❑ Non rupture of membrane.
- ❑ Cord around neck
- ❑ Head injury
- ❑ Non-availability of nursing care-neonate may die due to smothering, choking, suffocation, drowning.
- ❑ Precipitated labour-may cause death of the newborn due to head injury, suffocation or drowning or bleeding from umbilical stump.

Criminal causes

May be divided into two groups :

1. Acts of **Omission**

2. Acts of **Commission**

1. Acts of Omission or deliberate neglect

- Intentional failure to extend those cares to the newborn, that may lead to its death and may amount to infanticide.
- Examples-
 - A) failure to tie the cord
 - B) failure to protect the child from being suffocated by linens
 - C) failure to protect it from exposure of cold or other adverse site.

2).Acts of commission to cause infant death

- Suffocation by Smothering , Gagging, pressure over chest wall
- Strangulation
- Drowning
- Poisoning
- Head injury
- Concealed punctured wound-may be caused by nail or needle through fontanelle, inner canthus of eye.
- Cut throat injury
- Burying of newborn alive
- Burning
- Twisting of neck –fracture dislocation of cervical vertebrae

Sudden infant death syndrome

- **Sudden infant death syndrome (SIDS)** also known as cot death or crib death is the sudden death of an infant that is not predicted by medical history and remains unexplained after a thorough forensic autopsy and detailed death scene investigation

Predisposing causes

- Season-commonly in rainy and winter season
- Premature birth
- Sex - M:F=3:2
- Age – mid-infancy is most vulnerable
- Social status-lower and middle class
- Time of death-death possibly occurring at late night or after sometimes of 1st feeding of the infant in the morning.

Precipitating causes

1. Prolonged sleep apnoea-presently accepted as the most countable of the suggested cause
2. focal hypersensitivity of respiratory tract
3. Viral infection
4. Bed clothes and pillow falling accidentally over mouth
5. Prone position
6. Overlying

Medico-legal importance of SIDS

- Cot death being natural or very occasionally accidental, the parent may be wrongfully linked for having criminal involvement or negligence.
- Some criminal infant death cases may be presented as natural cot death cases.

Non-Accidental Injury Of Childhood

Battered Baby Syndrome

- Also known as **maltreatment syndrome in children or Caffey's syndrome** or child abuse syndrome.
- A battered child is one who has received repetitive physical injuries as a result of non accidental violence, produced by parent or guardian & in addition to physical injuries there may be non-accidental deprivation of nutrition, care and affection.

Features of Battered Baby Syndrome

- Age-usually less than 3 years old
- Sex-slightly more in male(55 to 63%)
- Position in family-eldest or youngest and often unwanted
- Socio-economic factors-lower socioeconomic status
- History-difference between nature of injury and explanation given by parent
- Treatment-delay between injury and medical attention

Injuries in Battered Baby Syndrome

- **Surface injuries**-mainly head face and neck region. Mainly bruise, abrasion and laceration.
- Laceration of mucosa of upper lip, often tear of fraenum is most characteristic lesion.
- Violent shaking lead to subdural haematoma (40% cases) and intraocular bleeding in battered babies, so called “**Infantile Whiplash Syndrome**”

Injuries in Battered Baby Syndrome

- Bite mark, traumatic alopecia, retinal haemorrhage, injuries to liver and spleen, small pitted burn of cigarette.
- Skull fracture are common in occipital-parietal area.
- Multiple rib fracture occur along posterior angle of ribs, after one to two weeks, callus is formed, and on X –ray “a string of beads” appearance is seen in the paravertebral gutter (**NOBBING FRACTURE**)

- Diagnosis depends upon
 1. Nature of injuries
 2. Time taken to seek medical advice
 3. Recurrent injuries

Differential diagnosis

- Scurvy
- Congenital syphilis
- Osteomyelitis
- Leukaemia
- Rickets
- Juvenile osteoporosis with stress fracture
- Osteogenic imperfecta

Munchausen's Syndrome

- Munchausen syndrome is feigning illness or injury and going from hospital to hospital for unnecessary investigation and treatment.

Munchausen's Syndrome By Proxy

- The term describe the action of one person (usually mother) who inflict harm against another person (usually an infant or small child) in an attempt to gain sympathy and attention for both of her own and child's suffering.

THANK
YOU!