

INFANTICIDE



Objectives

- ▶ Laws related to infanticide in Sri Lanka
- ▶ Diagnosis of live birth and still birth
- ▶ Estimation of the maturity
- ▶ Performing an autopsy in a case of suspected neonatal death
- ▶ Correlating an act of commission or omission with the infant death

INFANTICIDE

- Infanticide-oxford dictionary means the crime of killing a baby.
- Law interpret infanticide differently.
- Killing of a human (homicide) is murder whatever the age the person is.
- Infant murder has been considered as a less serious offence than an adult homicide.



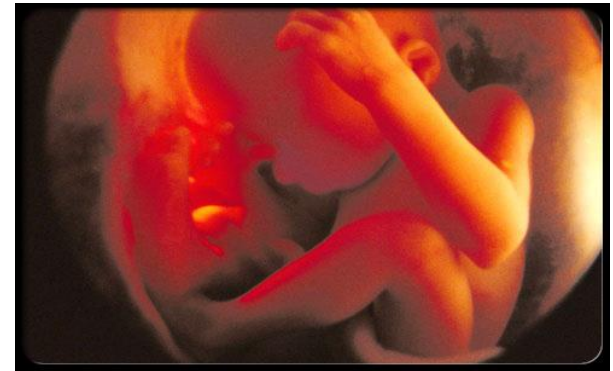
Section 294- Exception 5 (PENAL CODE)

Culpable homicide is not murder, if the offender being the mother of the child under the age of 12 months causes its death whilst the balance of her mind is disturbed by reason of her not having fully recovered from the effect of giving birth to the child or by reason of the effect of lactation consequent upon the birth of the child”

Charge of infanticide

- In UK, it must be established that the child showed signs of life after complete expulsion from the maternal passages referred as “separate existence”
- Sri Lanka it is not necessary to establish that there was complete expulsion of the child from the maternal passage but only the signs of life

LIVE BIRTH



► Live birth definition according to code of criminal procedure

The child shows the signs of life after being completely born or when at least a part of the child has been brought forth

► World Health Organization definition

- Complete expulsion or extraction from its mother of a product of conception, which after such separation breathes or shows any other evidence of life such as beating of the heart, pulsation of the cord or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or placenta attached.

Definition of still birth (CPC)

Any child issued forth from its mother after 28 weeks of pregnancy, which did not at any time after been completely expelled from the mother breathe or show any signs of life.



Main criteria to be established in alleged Infanticide

- Child was born alive
- Alive at the time of its death
- Child was completely or a part of the child has been brought forth at the time of killing
- Child died as a result of act of commission or omission (exclusion of maternal disease, labour complications, congenital deformities, natural and accidental causes)
- Maturity and viability
- Time since death
- Conditions of disposal
- Mother child relationship

Modes of disposal

20: Infanticide



FIGURE 20.1 *Newborn baby with umbilical cord and placenta, abandoned in a car park. It was wrapped in a curtain and though the head was in a plastic bag no signs of suffocation nor of live birth could be detected. The mother was never identified.*



FIGURE 20.9 *Frozen newly born infant found in a freezer by the children of the family. The child and placenta were packed and frozen in separate plastic bags, the umbilical cord is still attached. The family had moved twice after the birth of the child.*



Figure 20.1 The body of a newborn baby with the placenta still attached was left in a blanket by the side of a country road. At autopsy, no evidence of a separate existence could be proved.



FIGURE 20.2 *Full-term newborn found wrapped in a blanket inside a shopping bag in a refuse container. The cord had been cut with a sharp instrument, but the child was not washed or fed. The lungs showed no positive evidence of respiration.*

Decomposed infant



FIGURE 20.5 *A decomposed newborn infant found in a rubbish dump.*

Infanticide

Medical evidence is useful to establish

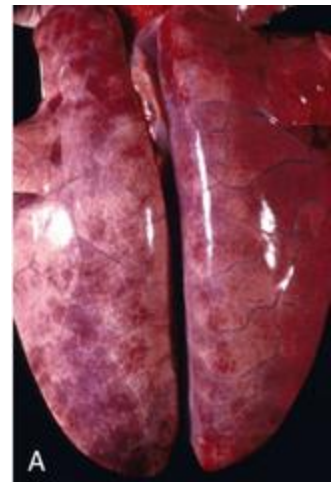
- A live birth
- A deliberate act of commission
(eg. Strangulation) or omission (failing to feed/keep warm) leading to the death of an infant
- Age of the child is less than 12 months
- Mother was recently pregnant
- Disturbance in the mother's mind (opinion from the psychiatrist)

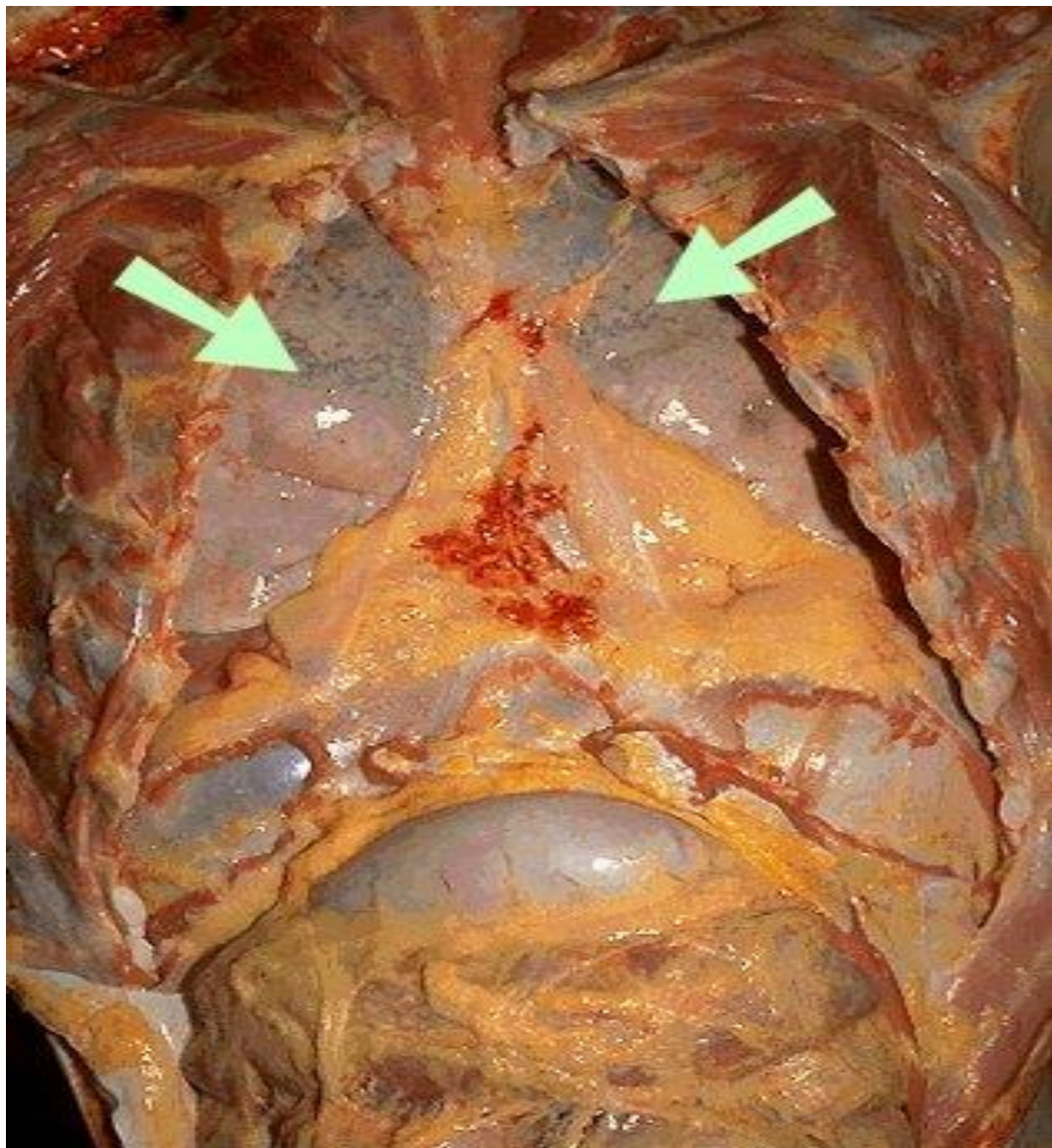
SIGNS OF LIVE BIRTH AT AUTOPSY

- ▶ Aeration of lungs
- ▶ presence of air in stomach intestine, middle ear
- ▶ Milk in stomach
- ▶ State of umbilical cord
- ▶ Signs of maturity & viability

Examination of lungs

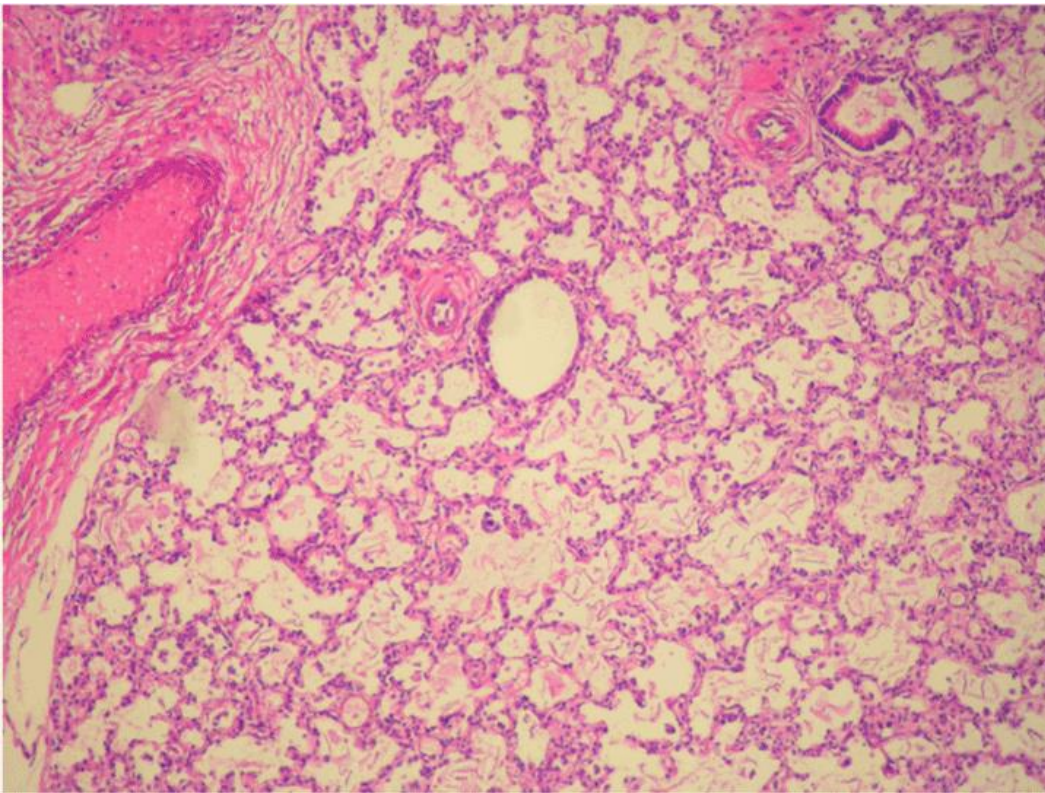
- Un-respired lungs dark heavy (like liver) Collapsed on to the hilum
- Respired lungs- fill the chest cavity
- Pink, mottled and crepitus
- Specific gravity of un-respired lung is higher than that of the respired lung.



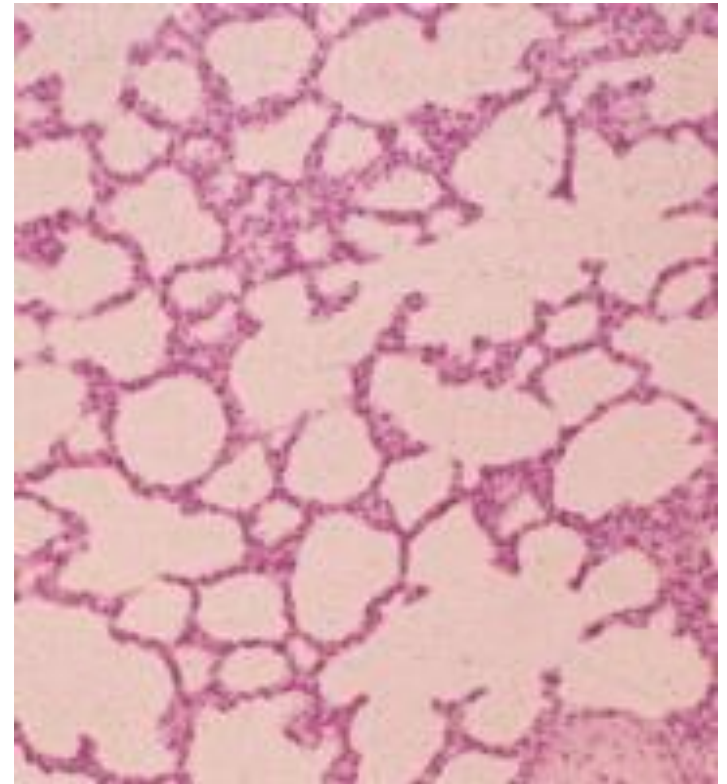


INSUFFICIENT ALVEOLAR EXPANSION (Histology A)

A



B (Expanded Lungs)



Floatation Test

- ▶ Dissect out the lungs en-mass after ligation of the trachea
- ▶ Immerse the lungs with trachea in a jar filled with water
- ▶ separate each lung and float them
- ▶ Cut each lung into 12-20 pieces and float them
- ▶ Squeeze the air and float them
- ▶ If all float-proof of respiration
- ▶ Only 50% float respiration in the maternal passages, struggled to breath of partial or incomplete respiration, putrefaction or pneumonia.

Floatation test

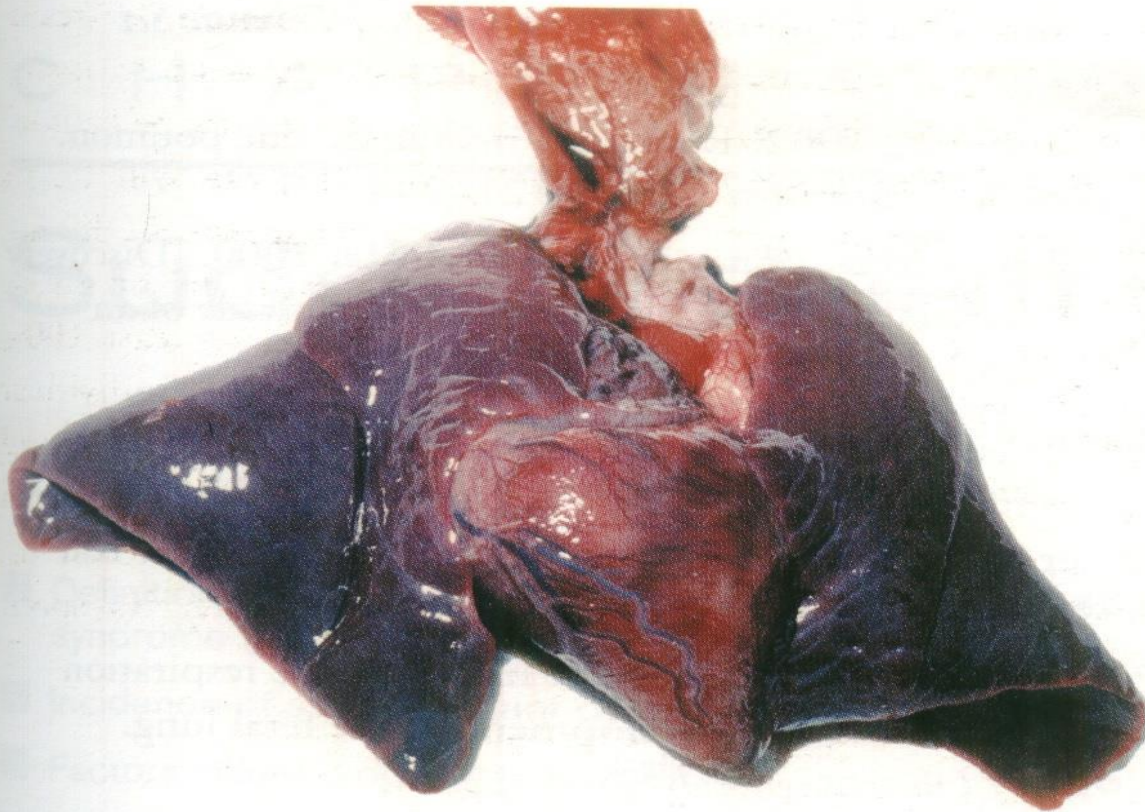


FIGURE 20.11 *The pluck of thoracic organs from a known stillbirth in hospital. The lungs are firm and heavy with no crepitation when squeezed. Margin portions of lung floated in water, however, demonstrating the fallacy of the 'floatation test'.*

Other tests for proof of breathing

- Air in the stomach- stomach tied off at both ends and float in water. Then opened under water to see air emerging
- Middle ear cavity examined underwater to see air bubbles emerging
- Interpretation has to be very careful when putrefaction is present

Other changers cont.

Cord changes

- ▶ Birth plump, spiral and firm
- ▶ 12-24 hrs Drying commences at the free end
- ▶ 36 hrs Zone of reddening around the attachment of the cord
- ▶ 2-3 days dry and shriveled
- ▶ 4-5 days separation
- ▶ 6-7 days complete separation
- ▶ 12 days active scar
- ▶ 3 weeks contraction of scar tissue







Other changers cont.

- Skin changes
 - Birth skin is bright red with vernix caseosa
 - Fine desquamation of the skin (begins 2nd day and complete 2 weeks)
- Vascular changes blood group foetal blood and tissue reaction to trauma
- Milk in the stomach





Signs of a body of a macerated fetus due to IUD

- Body soft, flaccid and flatten when laid
- Skin brown red, peeling or raised into blisters
- Tissues filled with red serum
- Organs oedematous
- Skull bone abnormally loose and override (Spalding's sign)
- Limb bones loose
- Rancid smell

Macerated foetus due to IUD



Maturity & viability

Age in months	C-Heel Length	Weight	Ossific center	Other
1	1.25cm			limb buds, villous chorion
3	9 cm			Nails, placenta well formed
5	25 cm	350- 450g	calcaneum	Hair
6	30 cm			
7	35 cm	900-1400g	Talus, U. sternum	lanugo all over
8-	40 cm	1500-2000g	L sternum, L femur	
36 weeks	45cm	2200g	Cuboid, Lower Femur 1cm	
40 weeks	48-52cm	2.5-3.4kg (SL)	Upper Tibia	lanugo absent, testes palpable,

Fetal maturity

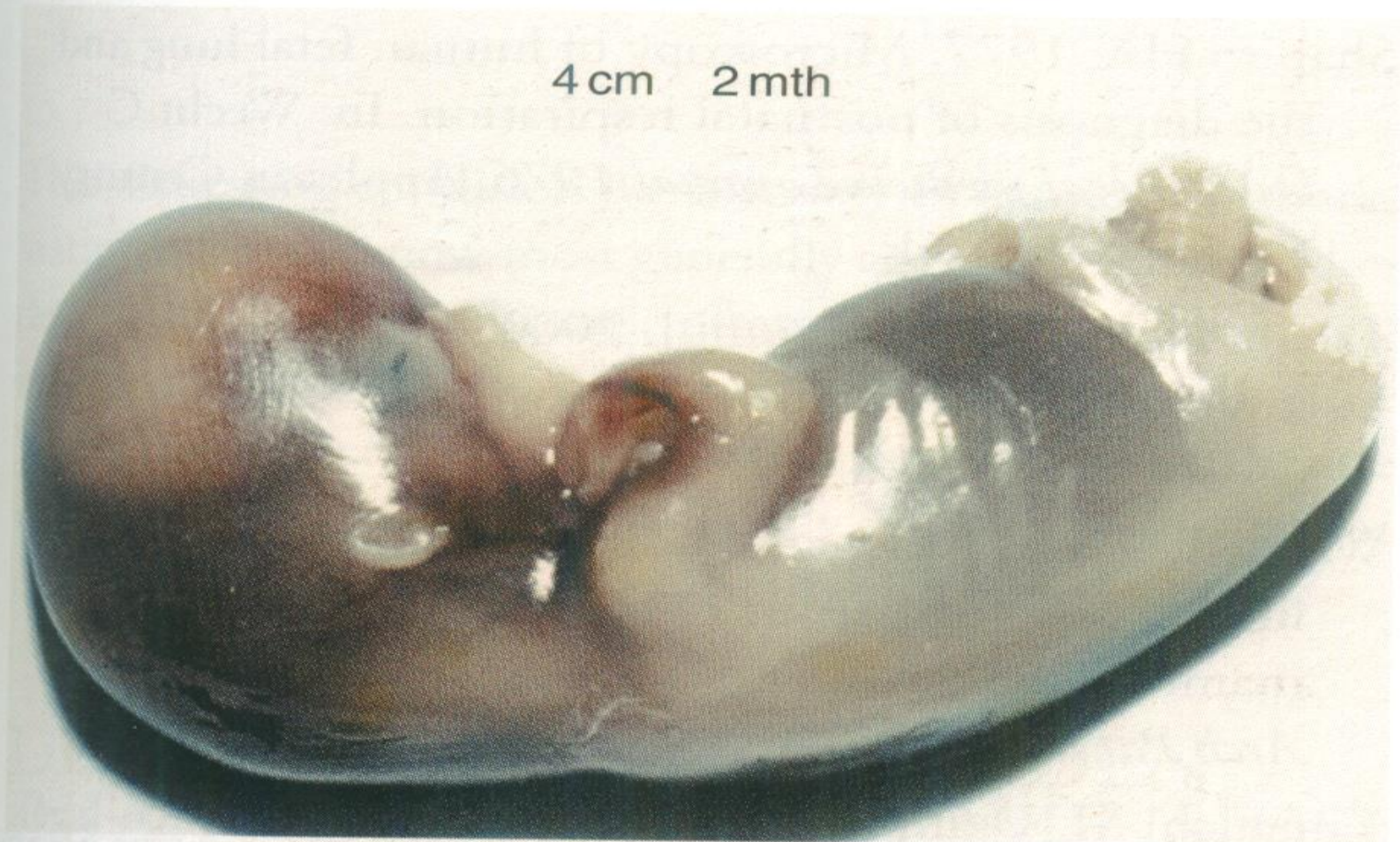


FIGURE 20.12 *Fetal maturity: up to the twentieth week the length of the fetus in centimetres is approximately the square of the age in months (Haase's rule).*

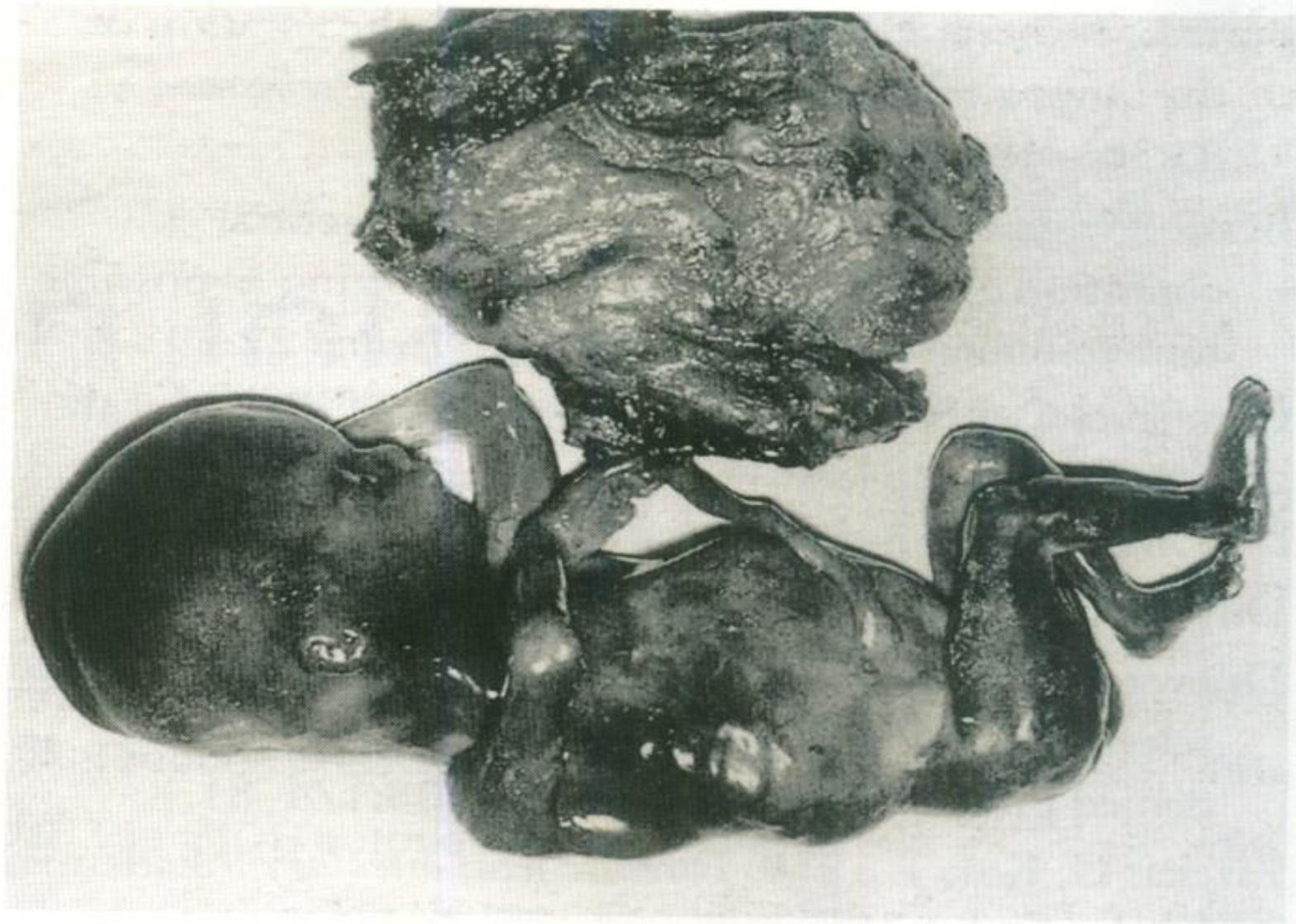


FIGURE 20.13 *Fetal maturity: by Haase's rule this 18 cm crown–heel fetus is about 4.5 months old.*

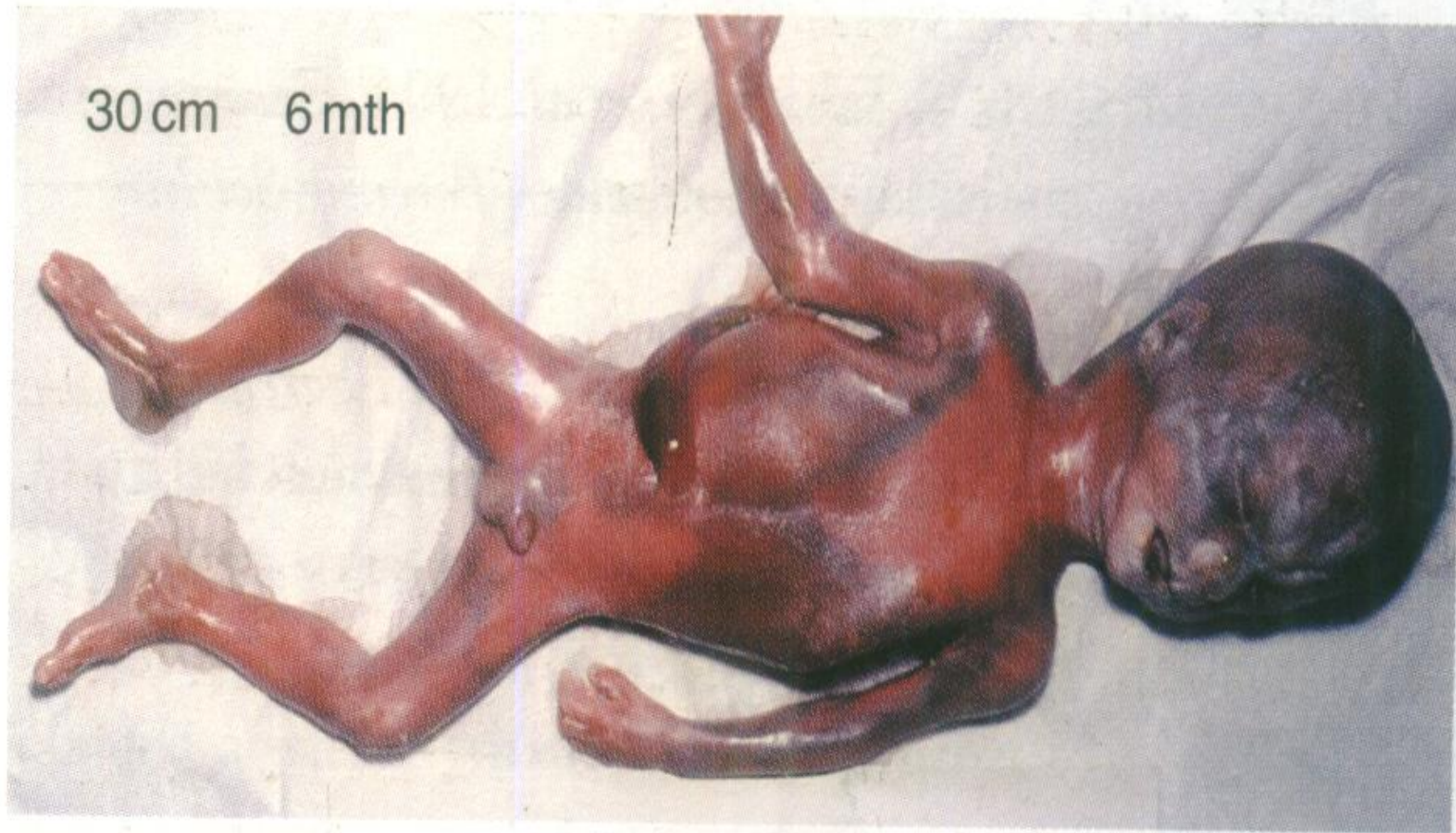


FIGURE 20.14 *Fetal maturity: this infant is 30 cm crown–heel length, which is approximately 6 months’ gestation, as the length in centimetres beyond the fifth month is about five times the age in months.*







Figure 20.5 Cross-section of the lower end of the femur showing the ossification centre.

Proof that the child was completely brought forth or partially brought forth

- Circumstantial evidence from eye witness
- Evidence of full respiration

Proof that child was killed by an act of commission or omission

- **Commission-**

- Blunt trauma usually to the head-dashed on the floor, Thrown down, Blow with the weapon
- Drowning, smothering
- Cut injuries to the neck, stabs to the chest
- Strangulation with cord or cloth, twisting of neck with cervical spine injury
- Buried alive in soil or put to toilet pit.



FIGURE 20.7 *Definite infanticide, the child having fully respired before having this severe incised wound of the neck made with a kitchen knife.*



"Baby Boy B," with slit neck



FIGURE 20.8 *A putrefied newborn infant with a scarf knotted tightly around the neck. (Reproduced by kind permission of Professor E Lignitz.)*



Showing contusions on the right side of the neck and an abrasion on the front of the neck

Proof that child was killed by an act of commission or omission

- **Omission-**

- Failure to ligate code once cut
- Aspiration of fluid and asphyxiation
- Suffocation by cloths
- Starvation
- Abandoning the child

Common defenses in Infanticide

▶ Precipitate delivery

- Common in multipara
- Head is small with a wide pelvis
- Other parts of body is free of injuries
- No caput or moulding

▶ Birth trauma

- Moulding with a caput and cephal haematoma
- Fractures absent

▶ Instrumentation

- History and other evidence of forceps or decapitation
- Lacerations, fractures in form of gutter or pond

Precipitated delivery into a toilet



Traction marks during self delivery

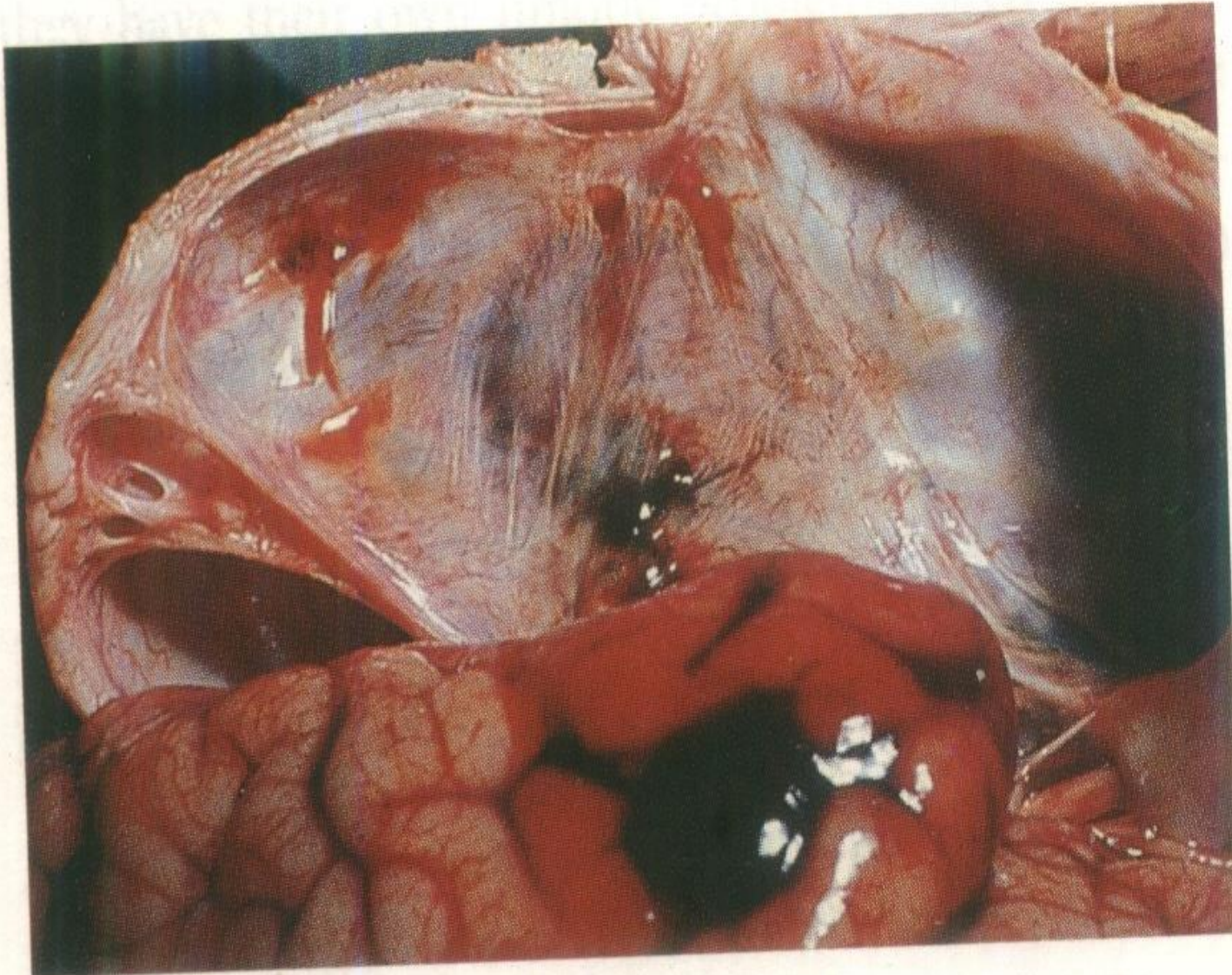


Figure 20.4 Abrasion of the neck of a baby. These marks were found to have been caused by traction of the neck of the baby by the mother during self-delivery. Similar marks could be caused by strangulation.



FIGURE 20.3 *A stillborn child concealed by the mother after birth. The injuries around the neck were viewed with suspicion by the police, but are the result of fingernails being used in an attempt to assist self-delivery in an unattended birth.*

Temporal lobe haemorrhage in a precipitated death



Rapid moulding of cranium in a precipitate delivery

Common problems faced

- Putrefaction
- Tracing of the mother
- Examination of the mother for signs of pregnancy and delivery
- Establishment of the mother-child relationship
- Establishment of disturbance in the mother's mind

Summary

- Criteria to be established in infanticide include
 - Signs of live birth includes- signs of breathing
 - Establishment of signs of life
 - Establishment of acts of commission or omission led to death
 - Establishment of mother- child relationship
 - Establishment of disturbance in the mother's mind
- Aware of common defenses

Reference

1.. Knight's Forensic Pathology
4th Edition

2.Lecture Notes in Forensic Medicine
Volume 1 By Dr LBL de Alwis

3. Legal aspects of medical practice. Bernard Knight.
5th edition

4. Simpson's forensic medicine, 13th edition



Thank
You!