

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Placenta & umbilical cord

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Objective

- After this lecture the student must be able to
- Define the placenta & umbilical cord
- List the abnormality of them
- Discusses the function of placenta

Placenta



Origin

The placenta develops from the chorion frondosum (fetal origin) and deciduas basalis (maternal origin)

Anatomy At Term:

- ***Shape: discoid.***
- ***Diameter : 15-20 cm.***
- ***Weight : 500 gm.***
- ***Thickness: 2.5 cm at its center and gradually tapers towards the periphery.***
- ***Position : in the upper uterine segment (99.5%),0.5% in lower uterine segment***

Surfaces:

a. Fetal surface:

- smooth is covered by the amnion which is reflected on the cord. The umbilical cord is inserted near or at the center of this surface.

b. Maternal surface:

- dull grayish red in color and is divided into 15-20 cotyledons.

Functions Of The Placenta:

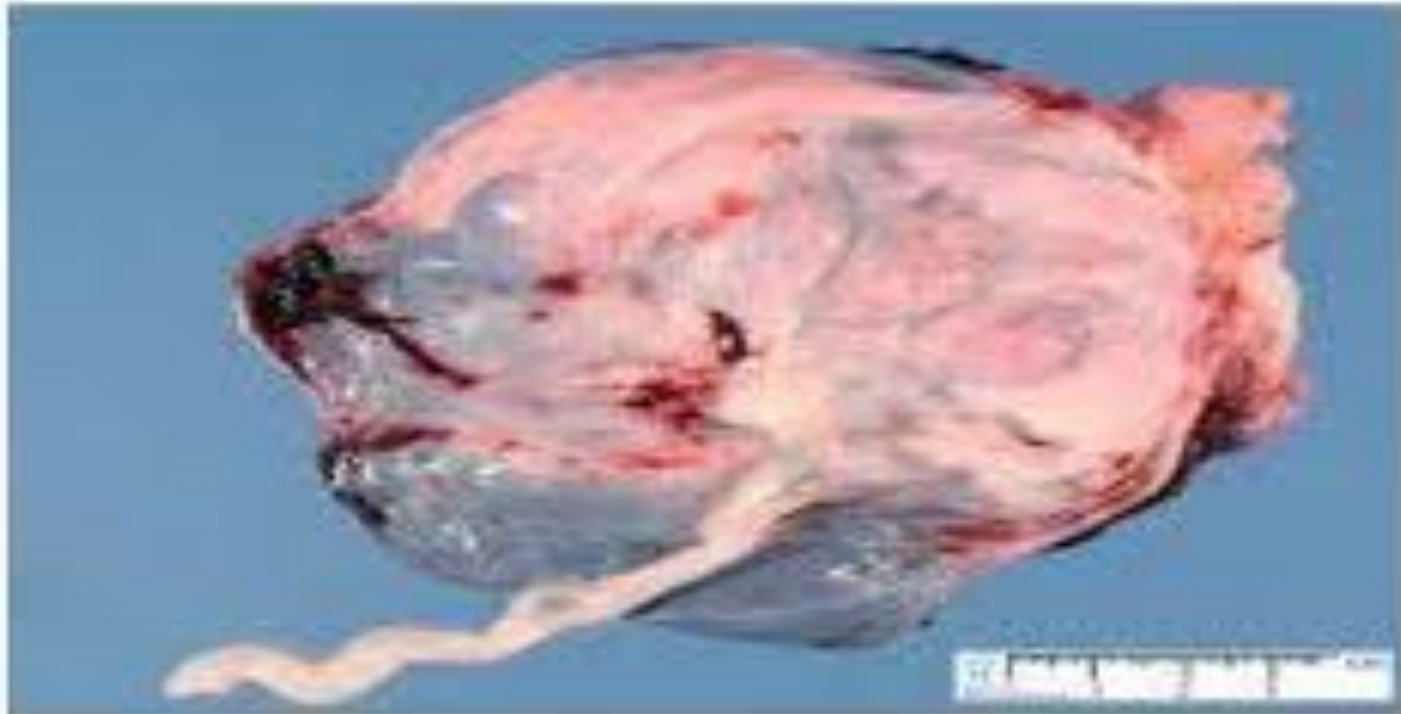
- (1) Respiratory function
- (2) Nutritive function
- (3) Excretory function
- (4) Production of enzymes
- (5) Barrier function
- (6) Endocrine function

Abnormalities Of The Placenta

- (A) Abnormal Shape
- (B) Abnormal Diameter
- (C) Abnormal Weight
- (D) Abnormal Position

Umbilical Cord

ii) SHORT CORD



- The umbilical cord is a narrow tube structure it connects the developing baby to the placenta. begins to form at 5weeks after conception.
- The cord contains three blood vessels: two arteries and one vein.
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- vein carries oxygen and nutrients from the placenta (which connects to the mother's blood supply) to the baby.
- two arteries transport waste from the baby to the placenta (where waste is transferred to the mother's blood and disposed of by her kidneys).

Umbilical Cord

Anatomy

- **Origin** : It develops from the connecting stalk.
- **Length**: At term, it measures about 50 cm.
- **Diameter**: 2 cm.

Structure

It consists of mesodermal connective tissue called Wharton's jelly, covered by amnion

It contains:

one umbilical vein carries oxygenated blood from the placenta To the fetus

two umbilical arteries carry deoxygenated blood from the fetus to the placenta

Abnormalities Of The Umbilical Cord

- (A) Abnormal cord insertion
- (B) Abnormal cord length
- (C) Knots of the cord
- (D) Torsion of the cord
- (E) Hematoma
- (F) Single umbilical artery

Summary

1. The placenta is where the nutrients for the baby is located, while the umbilical cord just serves as a link between the baby and the placenta.
2. The placenta is discarded after the baby's delivery, while a portion of the umbilical stump still remains on the baby, but soon withers away as well

THANK YOU

