

Types of placenta.

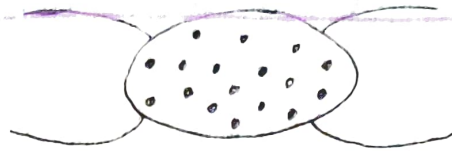
On the basis of fixation (contiguity) with villi with uterine wall.

<I> Indeciduate type :- During parturition villi are easily withdrawn from crypts of uterine wall i.e. no bleeding in parturition.

e.g. cow
 <II> Deciduate type :- Villi are more intimately with uterine wall i.e. lot of bleeding in parturition.
 e.g. Humans.

(II) On the basis of distribution of villi on uterine wall.

<I> Diffusion type :-



-: diffusion

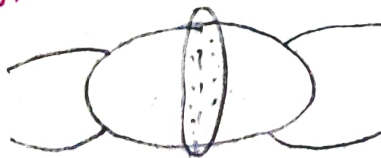
Villi are distributed equally on uterine wall.
 e.g. Horse and pig.

<II> Cotyledonary type :-



Villi are distributed in many group form on uterine wall.
 e.g. Cow.

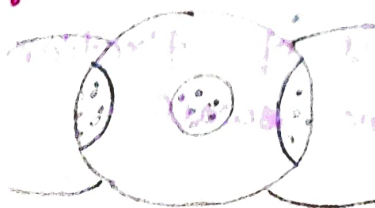
<III> Zonary type :-



Villi are distributed in band form on uterine wall.

e.g. Tiger, cat, sheep, pig, dog, horse.

<IV> Discoidal type :-



villi are distributed in many disc form on uterine wall.

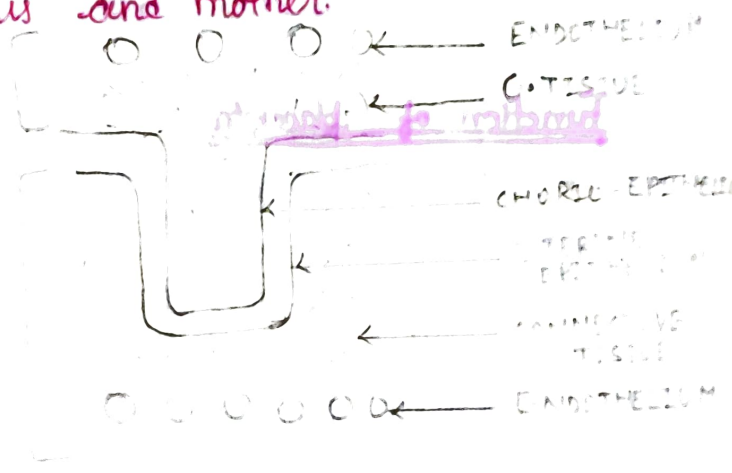
e.g. Rabbit

Meta discoidal type.



In early stage villi are distributed as diffusion type but in latter stage villi constrict to form a centrally lied disc form.
e.g. Humans.

On the basis of presence of membrane barrier between foetus and mother.



Usually six membranes are present b/t foetus and mother.

- Foetus:
1. - Uterine epithelium
 2. - Connective tissue
 3. - Endothelium.

- Mother:
1. - Chorio-epithelium.
 2. - Connective tissue
 3. - Endothelium.

Types of placenta.

<I> Epithelio-chorial placenta :-

All six membranes are pr. b/t foetus & mother.
e.g. Horse & pig.

<II> Syndesmo-chorial placenta :- Uterine epithelium of mother is eroded (burst). Only five membranes are pr. b/t foetus & mother. e.g. cow.

Embiothelio-chozial placenta :-

Uterine epithelium and connective tissue of mother are eroded. Only four layers are present between foetus and mother.

e.g. Tiger.

<iv> Haemochozial placenta :-

All three layers of mother are eroded only three membranes are present between foetus & mother.

e.g. Humans.

<v> Haemo endothelial placenta :-

All three membrane of mother and chorio epithelial layer of foetus are eroded. Only two membranes are present b/t foetus and mother.

e.g. rabbit

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Function of placenta.

1. - It protects the foetus from shock, injury and desiccation.
2. - It forms the nutritional channel from mother to foetus.
3. - It helps in ~~exp~~ exchange of gases.
4. - It helps in excretion.
5. - It acts as endocrine gland.

Desidua :-

After implantation, endometrial wall of uterus becomes modified and called as desidua. It is shed when foetus is delivered.

Desidua is of following types.

> Desidua basalis :-

Desidua between embryo and myometrium of uterus.

1. Chromosomes

2. Genes - instructions for making proteins and enzymes
3. Proteins - made from amino acids
4. Enzymes - speed up chemical reactions
5. Antibodies - fight off infections

Developmental issues

1. Chromosomes - errors in the number or structure of chromosomes can lead to developmental issues.
2. Genes - mutations in genes can lead to developmental issues.
3. Proteins - errors in protein synthesis can lead to developmental issues.
4. Enzymes - errors in enzyme function can lead to developmental issues.
5. Antibodies - errors in antibody production can lead to developmental issues.

Teratogens

These are agents or drugs which cause abnormal development.
eg. Rubella (virus), Alcohol, Drugs