Reproductive disorder disease

In simple language this can defined as disease affecting that lead to infertility or sterility

fertility : ability of an animal to reproduce

Infertility : temporary inability of the animal to reproduce

Sterility : permanent inability of the animal to produce

Causes :

1-anatomical (hereditary disease) or structural defector

2-functinal defect(hormonal disease)

3-infection causes

4-management causes

Anatomical or structural defect could be congenital or acquired

Congenital(newborn) anomaly

1- aplasia /absent of ovary
2- hypoplasia of ovary
3- white heifer disease
4- double cervix and external os
5- agenesis or aplasia of fallopian tube
6- atresia of vulva
7- hermaphrodite
8- freemartins

Acquired anomaly

1- Overo-bursal adhesion
2- adhesion of uterus
3-prolapse of annular rings
4- fracture of pelvis
5- ovarian tumor
6- vulval tumor

Acquired defect

Ovaro-bursal adhesion: may be due to following:

1- infection causes ex. extension of peritonitis due to traumatic reticulitis into the ovaro-bursal area

2- peritoneal tuberculosis

3- defective manipulation of ovaries like removal of corpus luteum leading to bleeding and adhesions

Acquired defect

Adhesion of uterus :adhesion of uterus to omentum, intestine or to abdominal wall may occur following caesarean operation .

Stenosis of cervix :may as a result of severe cervicitis or due to traumatic injuries . Forceful introduction of AI gun also leads to this.

Fracture of pelvis :this leads to stenosis of the pelvis . This increases the chances of dystocia

Tumors :of the vagina , cervix and uterus causing obstruction

Definition

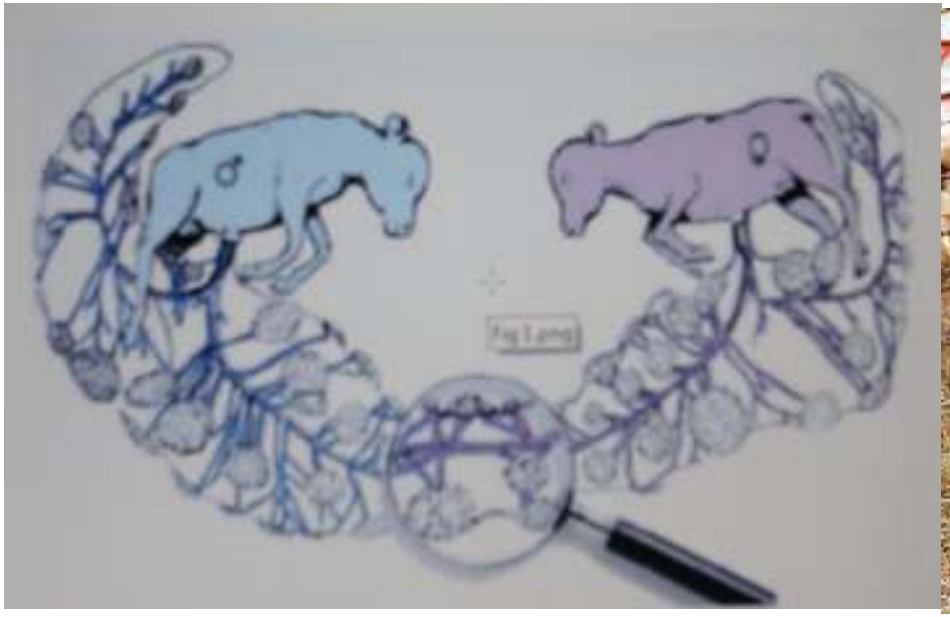
Teratology: The division of embryology and pathology dealing with abnormal development and malformation of the antenatal(fetal) individual is called teratology .

Anomaly: If the malformation involves only an organ or part of the body, it is called an anomaly.

Monster: If the deformity or malformation is extensive, the animal is called monster.

Intersex: An individual having some of the characteristics of both the sexes and therefore showing abnormalities of sexual development, is called intersex

Bovine freemartin : a sterile female calf , born co-twin with a male fetus that shows underdevelopment or misdevelopment genital tract as a result of early development of vascular anastomoses between fetuses of different gender. In cattle this condition is observed in 95% of twin pregnancies



Causes :Placental anastomoses that occur in the early embryonic life are responsible for freemartinism; their presence in females results in masculinisation

Clinical signs :

1-the vulva is smaller and present tuft of hair

2- enlarged clitoris is a common finding and complete hymen

3- vagina is shorter than in normal development

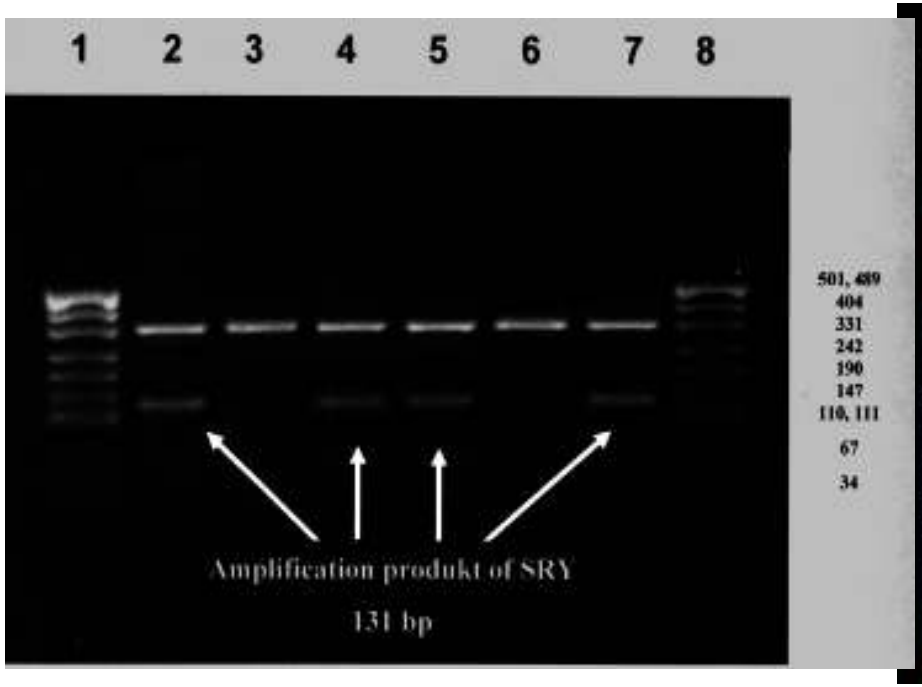
4-the uterus rudimentary or cord like and small ovary

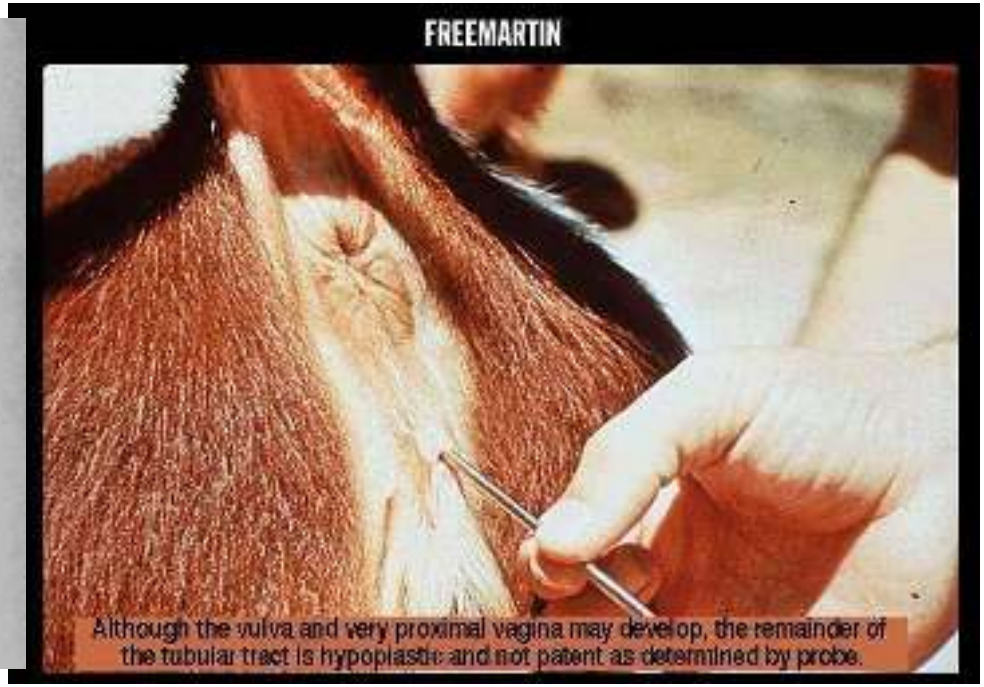
5- presence of seminal vesicle

Diagnosis freemartin

1- vagina is shorter(5-7cm) than in normal development(12-15cm)

2- molecular and cytogenetic analysis





hermaphrodite

True hermaphrodite: An individual having both testis and ovary or ovotestes, is called true hermaphrodite.

Pseudohermaphrodite: An individual having gonads of only one sex (either ovary or testis) but external genitalia and secondary characters of opposite sex

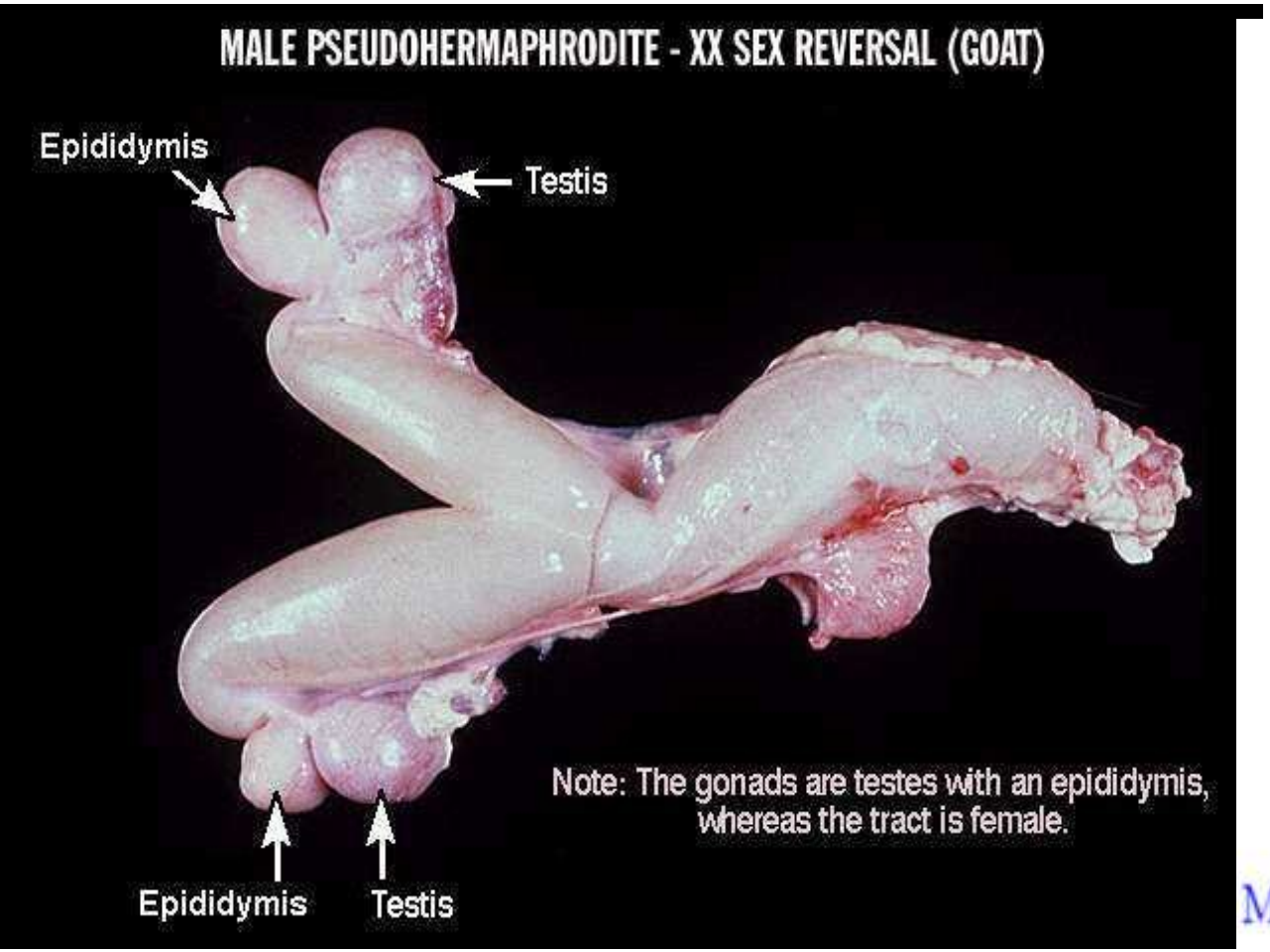
Male pseudohermaphrodite: An individual having testes but phenotypically resembles to female, is called male pseudohermaphrodite

Female pseudohermaphrodite: An individual having ovaries but phenotypically resembles to male, is called female pseudohermaphrodite.

True hermaphrodite

True hermaphrodite horse

Male pseudohermaphrodite



Male pseudohermaphrodite goat

Segmental aplasia of the mullerian duct

Uterus didelphys and double cervix in cow

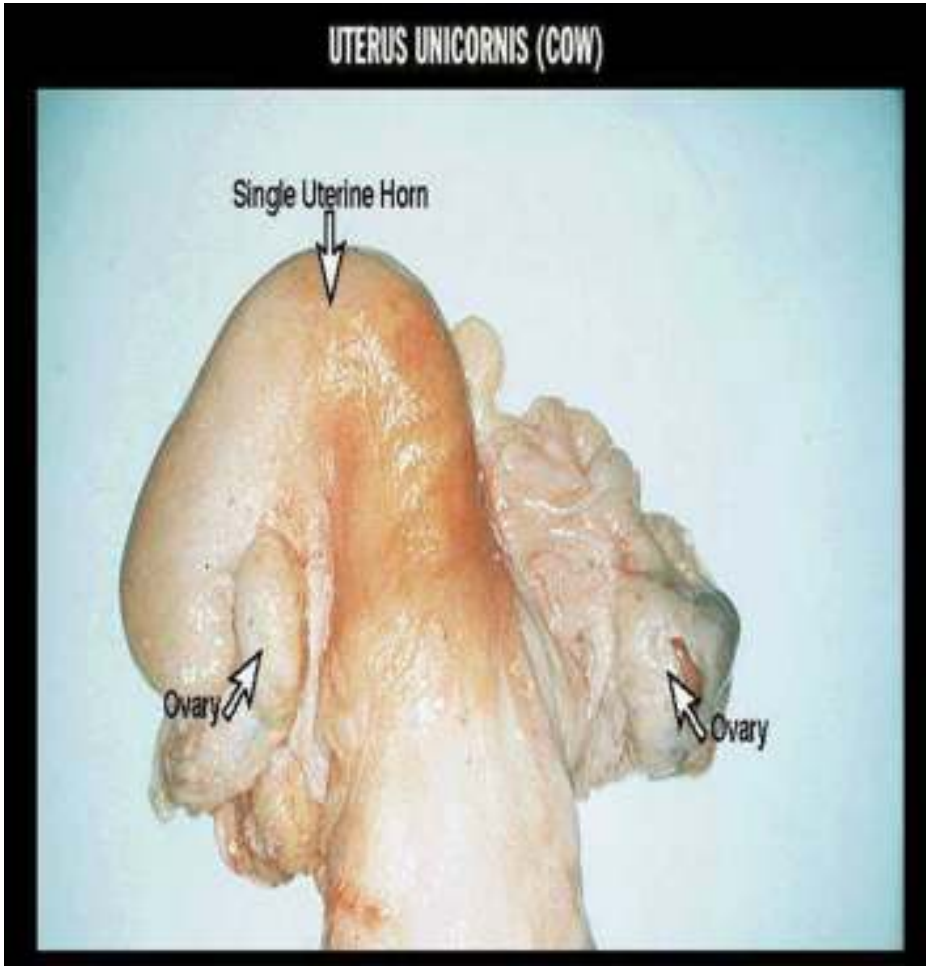
Uterus didelphys and double cervix, cows

Double cervix in cow

شكل (٤-٢٥): ازدواج عنق الرحم في ناقة.

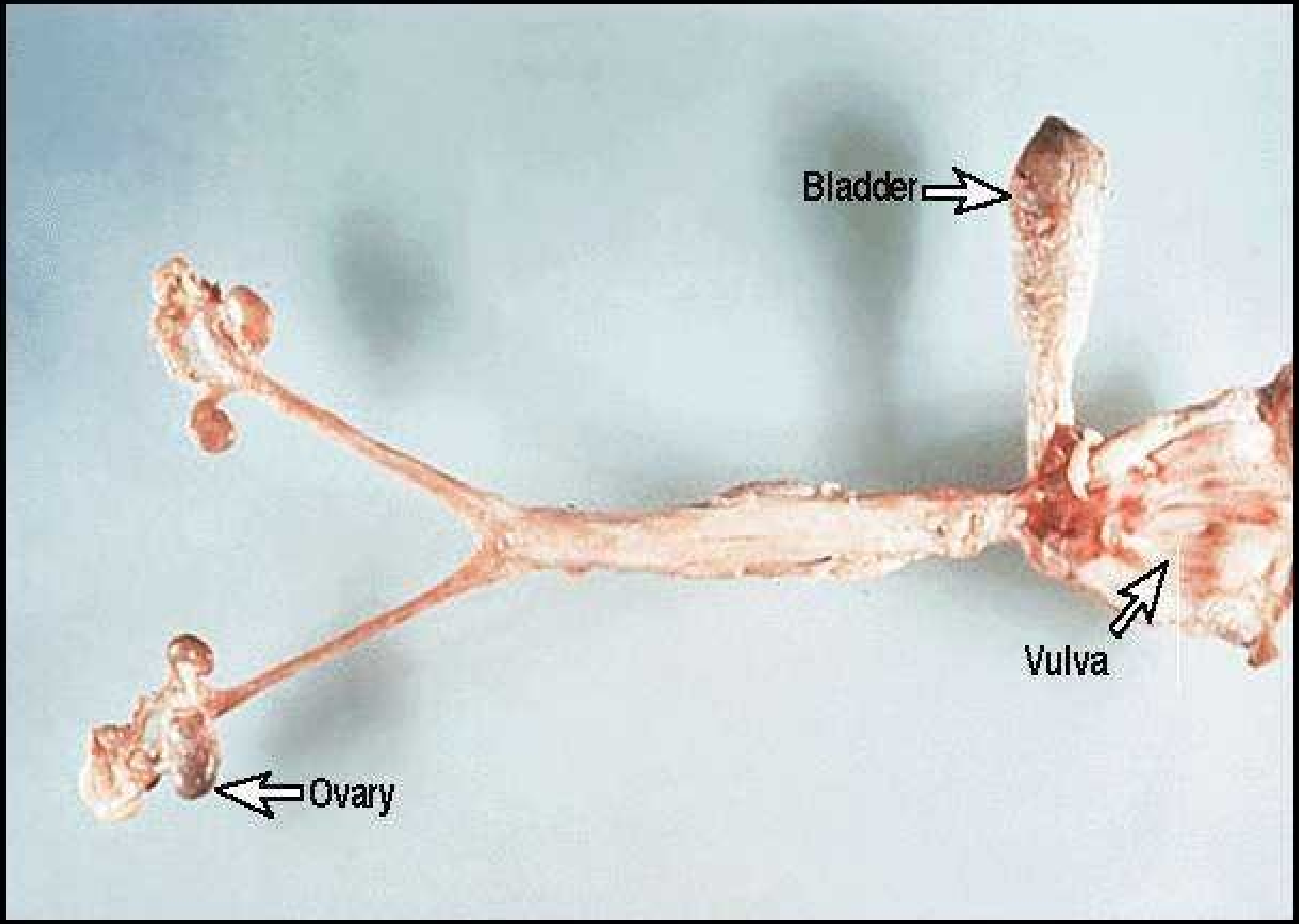
Segmental aplasia of the mullerian duct

Uterus uncorns in cow



Uterus uncorns in sow

UTERINE HYPOPLASIA (COW)



Segmental aplasia of the mullerian duct

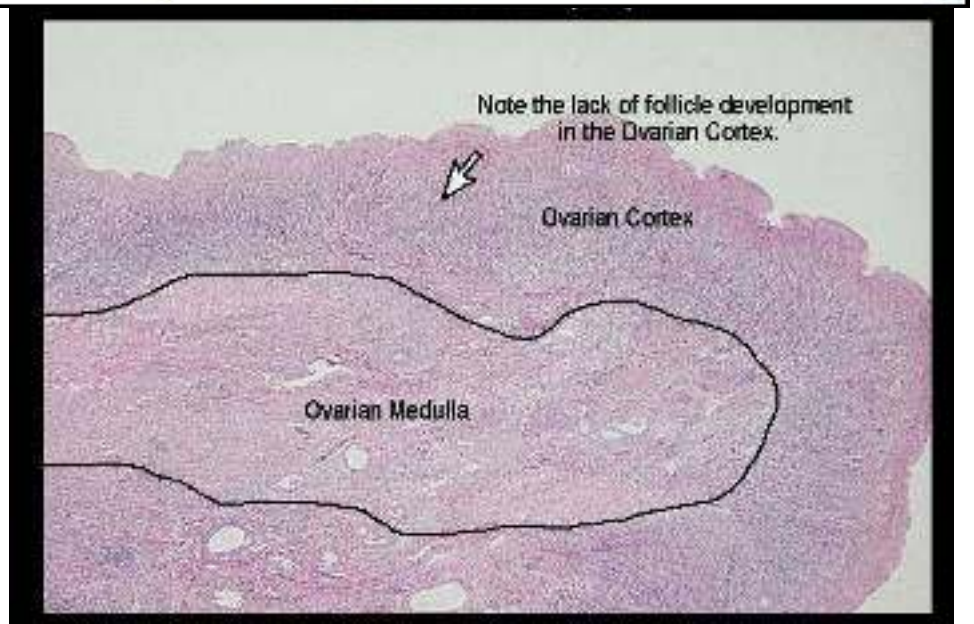
White heifer disease: Due to arrested development of the Mullerian duct system, the uterus and the vagina are incompletely developed and development of hymen membrane but the ovaries and vulva are always normal. This abnormality in heifer is called white heifer disease. Because found in white shorthorn breed

Ovarian hypoplasia

Ovarian hypoplasia in cow

شكل (٤-٢): نقص النسج المبيضي في بقرة.

Different between normal and abnormal ovary histology



Ovarian hypoplasia	inactive ovaries
1- hereditary causes	1- decrease FSH hormone
2- the case either heifer or cow	2 – the case mostly cow
3- either bilateral or unilateral ovary effect	3- always bilateral ovary effected
4- the surface of ovary groove	4- the surface of ovary smooth
5- the reproductive system infantile	5- the reproductive system normal
6- clinical signs of case anestrous	6- clinical signs of case anestrous
7- no respond to treatment with folligon	7 – respond to treatment by folligon

Atresia of vulva

The vulva of heifer is small so causes dystocia so must treatment by episitotomy