Cysts of ovaries and ovarian tumors in bitches

A Presentation By:

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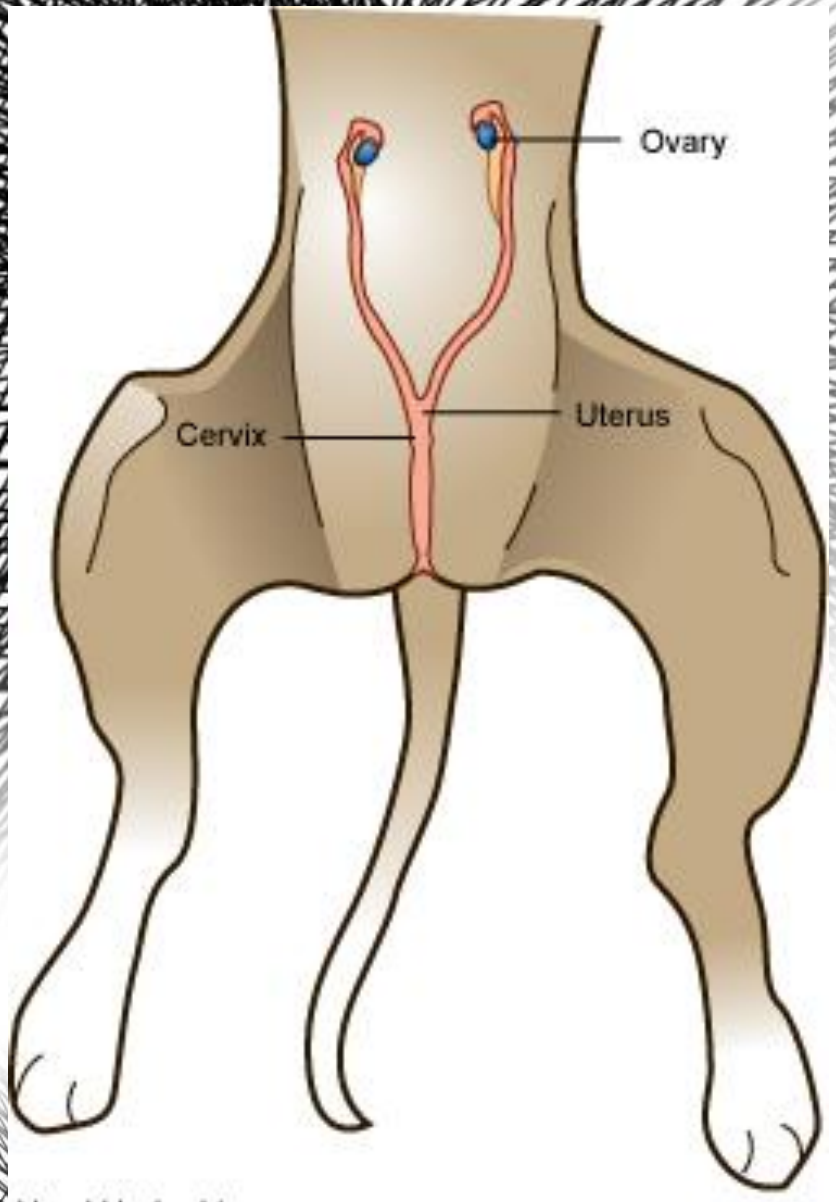
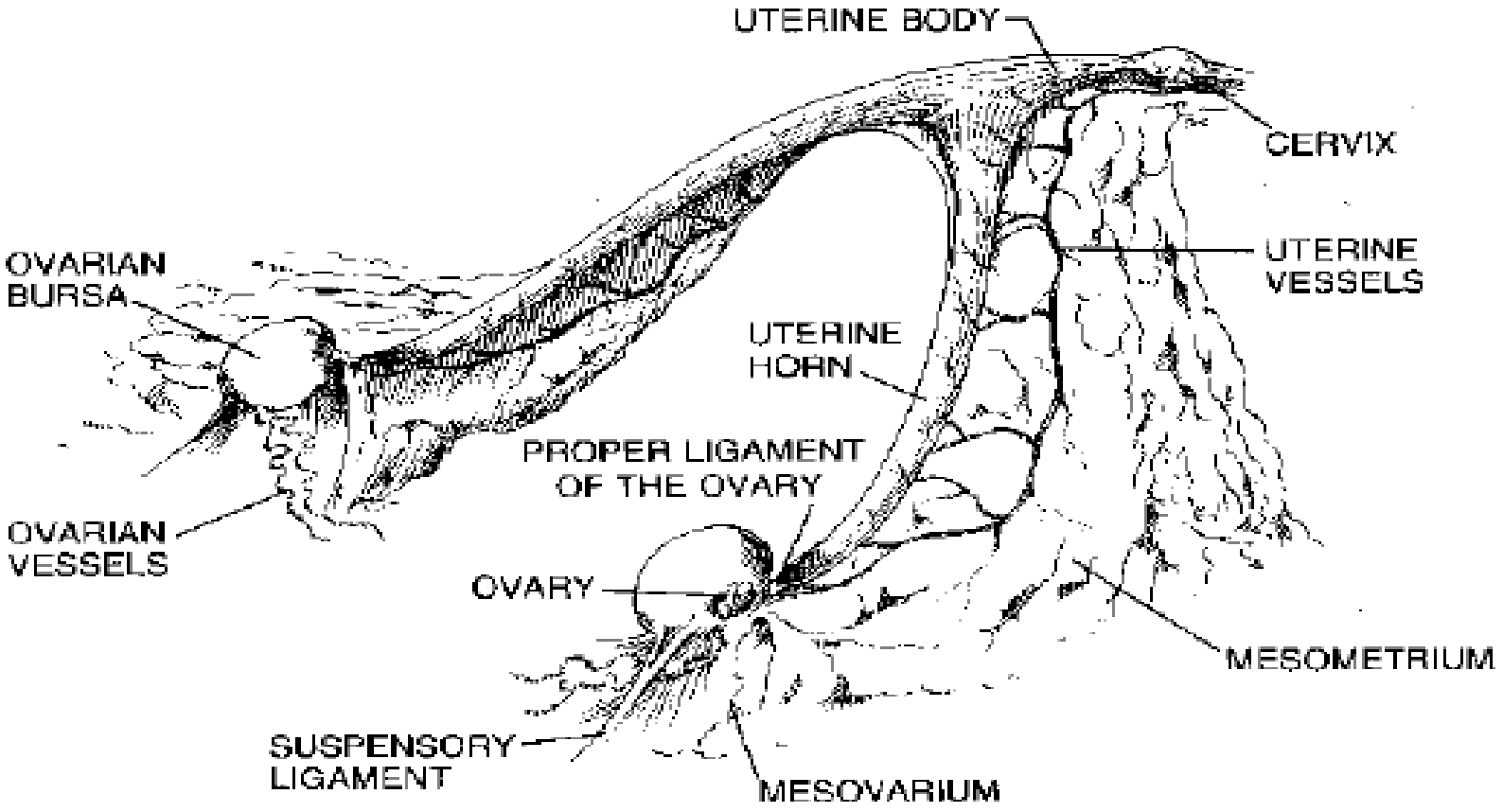
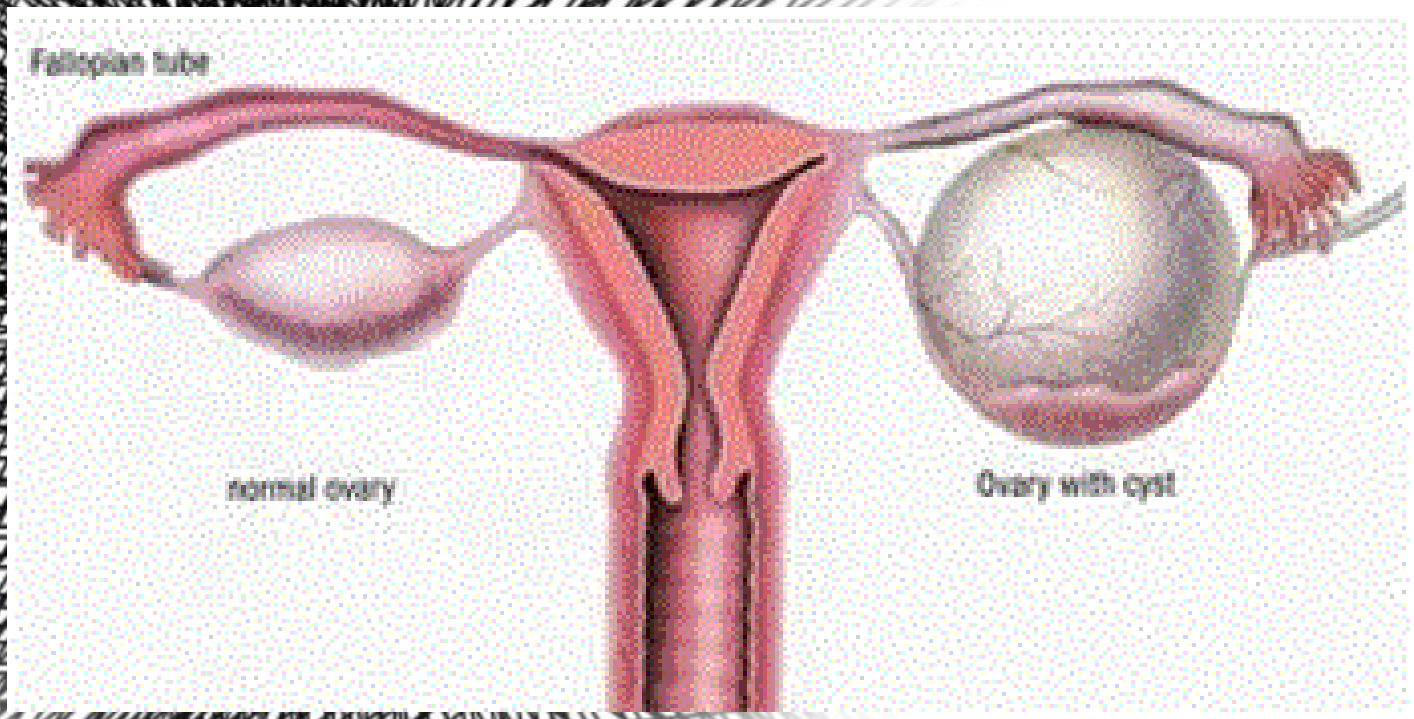



UTERINE BODY
CERVIX
OVARIAN BURSA
UTERINE VESSELS
UTERINE HORN
PROPER LIGAMENT OF THE OVARY
OVARIAN VESSELS
OVARY
MESOMETRIUM
SUSPENSORY LIGAMENT
MESOVARIUM


Fallopian tube
normal ovary
Ovary with cyst

Definition

thin-walled clear, serous fluid-filled structures

unilateral or bilateral, single or multiple.

may be present in only one or both ovaries

prolonged secretion of estrogen

permanent (persistent) estrus

Definition

characterized by :persistent cystic structures in the ovarian parenchyma with clinical correlation (abnormal estrogen or progesterone effect).

- Follicular (estrogen-producing) cysts: large and thin walled, with hypoechoic contents.
- Ovarian luteal cysts (producing progesterone) can have thicker walls; the contents remain hypoechoic

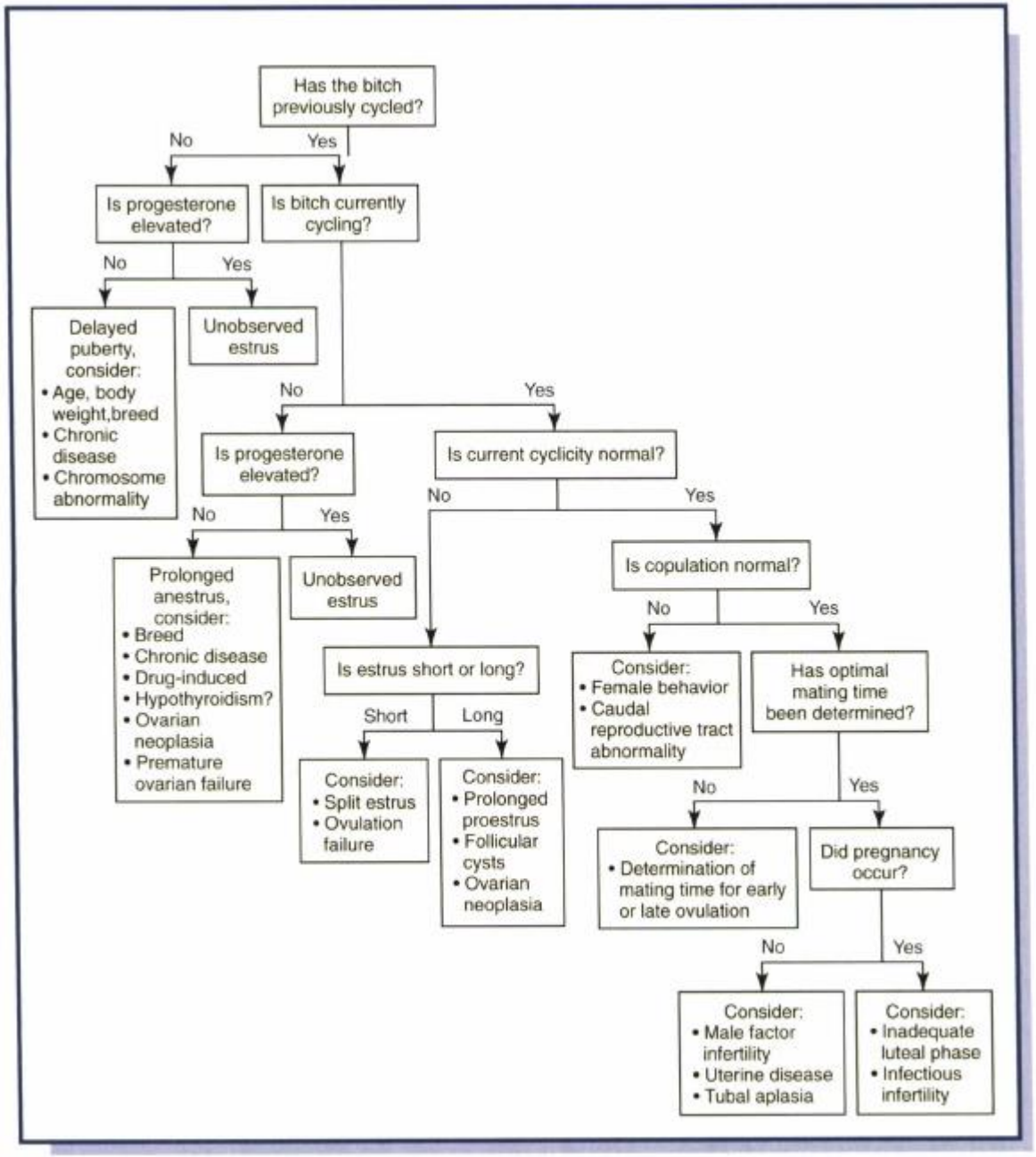


Figure 303-1 Algorithm for female infertility according to common clinical presentation.

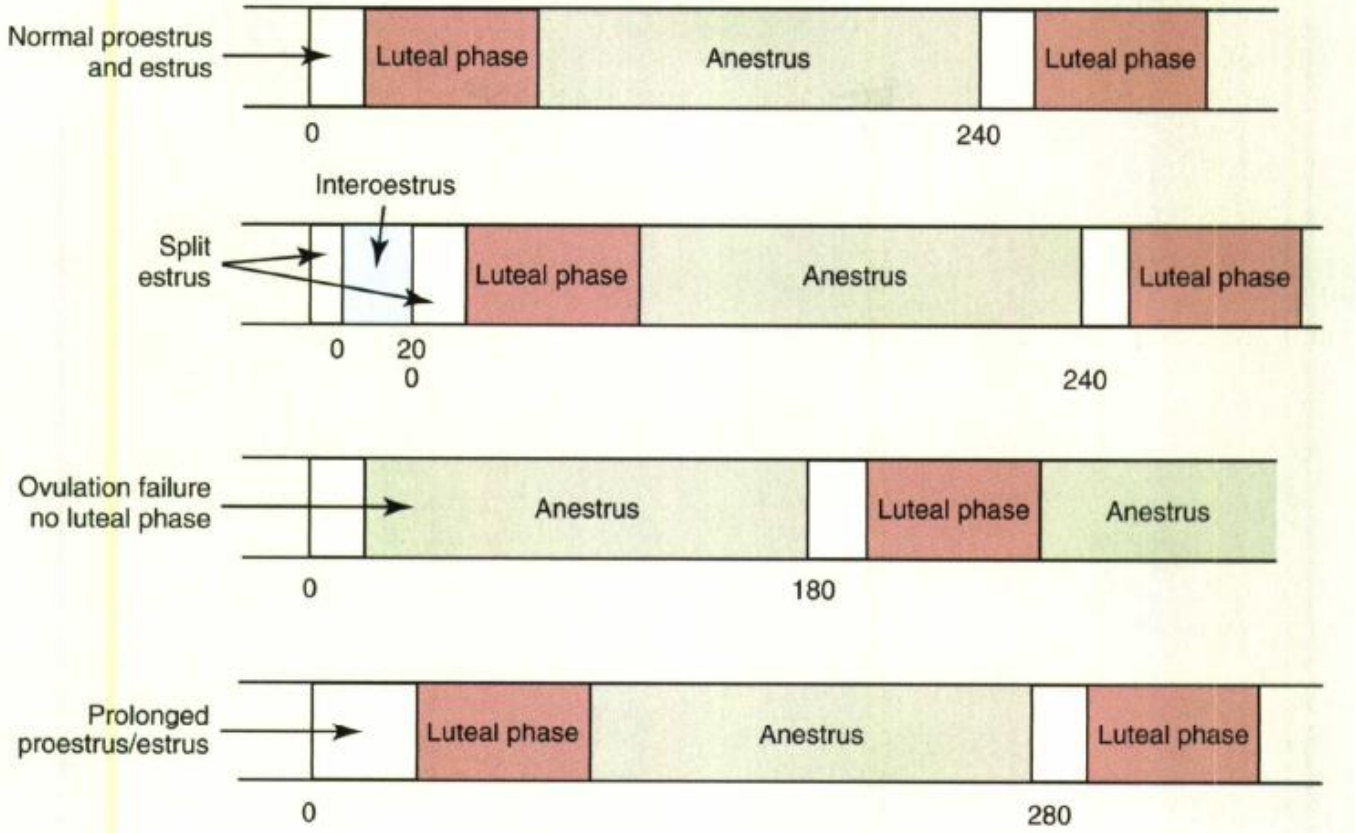


Figure 303-4 Schematic representation of return to cyclicity in days for bitches with various estrous cycle abnormalities.

Pathogenesis

often follicles that did not ovulate after the LH peak

1.The granulosa cells contained in the follicular wall may produce a high quantity of estrogens, leading to infertility with prolonged estrus. Sometimes, some luteal cells may be present as well.

differential diagnosis

- functional ovarian granulosa cell tumor.

1. vaginal cytology:

- presence of cornified cells

- elevated serum estrogens.

2. ultrasonography and laboratory tests.

- normal cystic structures during appropriate parts of the estrous cycle (follicles, corpora lutea).

Follicles would not be expected to persist for more than 21 to 30 days, corpora lutea for no more than 45 to 60 days.

Diagnosis

- ovarian ultrasonography: Follicular cysts appear as focal hypoechoic to anechoic structures.

1.Imaging the ovaries: evaluate their presence, size, and echogenicity.

2.cystic ovarian disorders diagnosing.

It is not always easy to distinguish between normal follicles and pathological follicular cysts.

- Usually, fully mature follicles, just prior to ovulation, do not exceed 0.9 cm in size. anechoic structures greater than 1cm: cystic structures. (Etinger: They are often large (8 to 12 mm diameter) and anechoic (fluid filled) with thin walls.)

Diagnosis

- Estradiol assays during the pro-estrus period

The patterns are often modified in two ways:

1.Maximal level of estradiolemia may be increased from what is usually found at the peak of estradiol, 24 hours before the LH peak.

2.Often, the suspicion of an ovarian pathology will arise at the end of the heat period, when the estradiol plasma level will not drop at a basal level after the rise of progesteronemia.

In order to survey the level of estradiol, veterinarians are encouraged to take a blood sample every other day during pro-estrus.

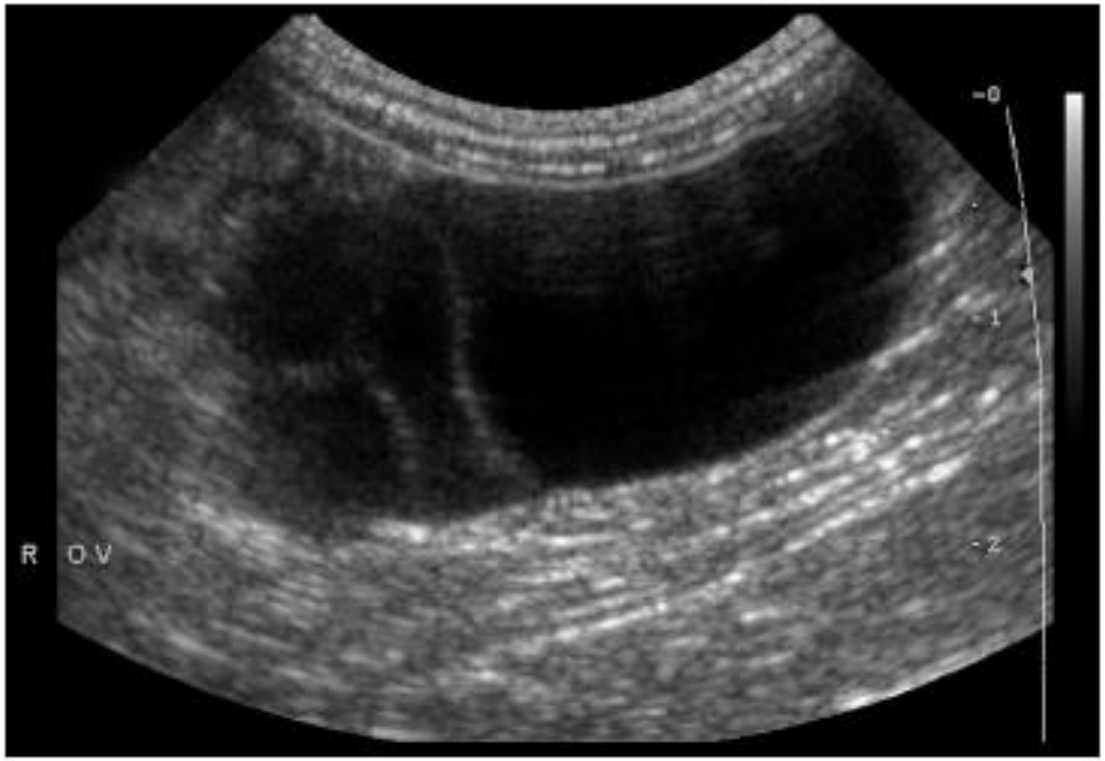


Figure 23. Ovarian follicular cysts.

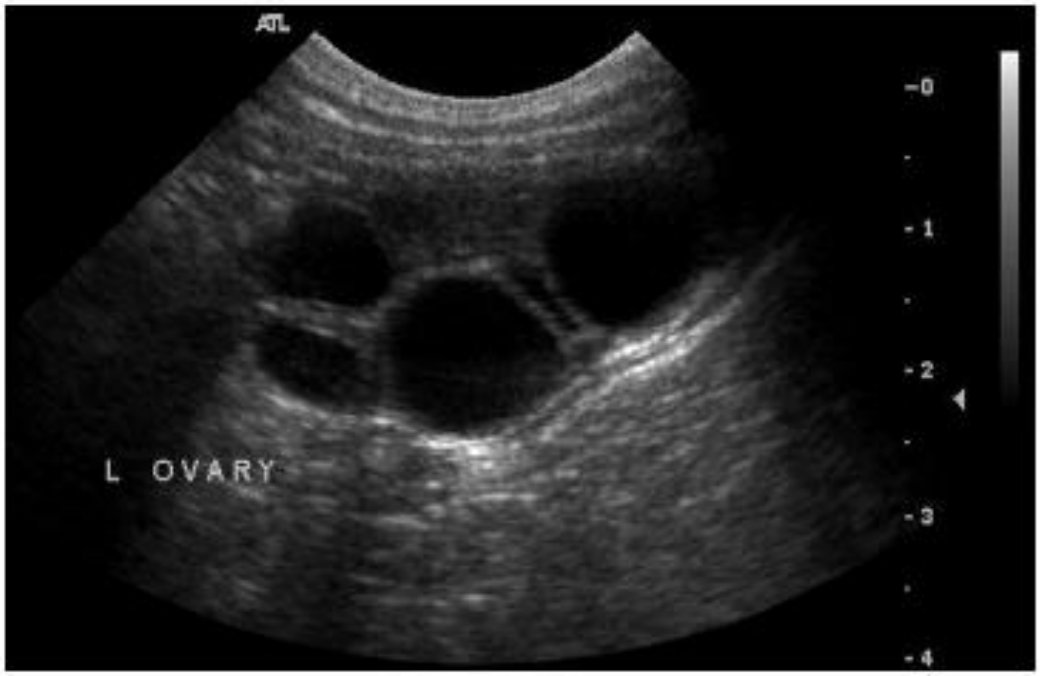


Figure 24. Ovarian luteal cysts. Differentiation of follicular from luteal cysts requires clinical evaluation (vaginal cytologies, serum progesterone levels).

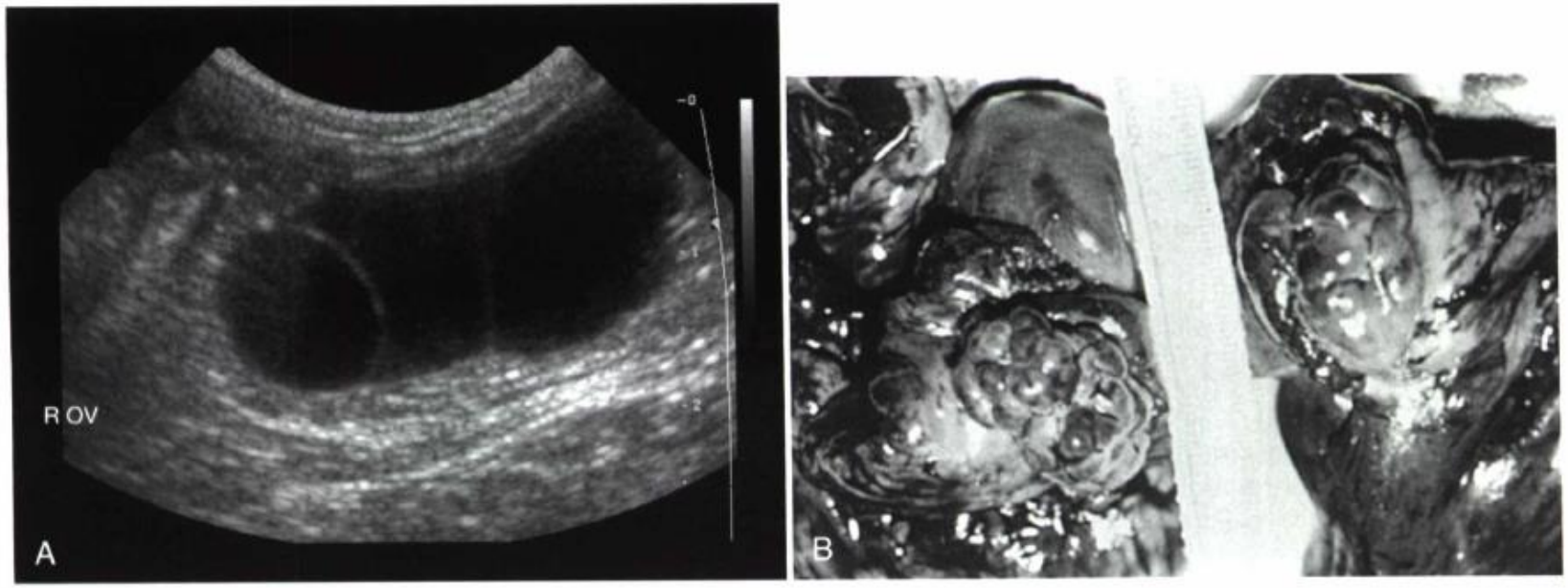
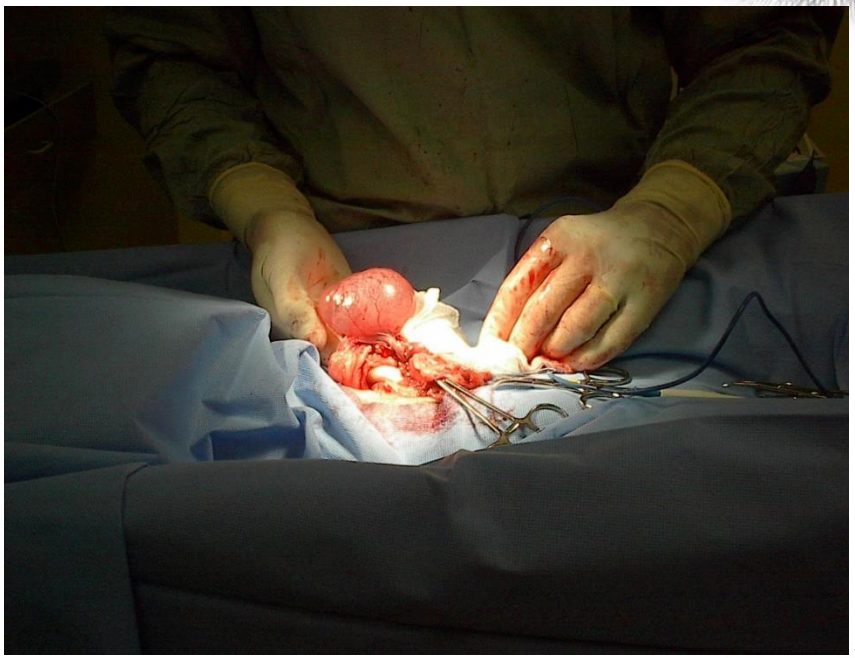


Figure 298-3 **A,** A large, thin-walled, hypoechoic follicular ovarian cyst seen at the cranial pole of the right ovary *(R OV)*. **B,** Functional, nonovulatory follicular ovarian cysts found in a Mastiff bitch that has been experiencing proestrus/estrus for greater than 3 months. (**A,** Courtesy Tomas Baker.)

Treatment

- ovariectomy or ovario-hysterectomy
- unilateral ovariectomy
- removal of the cysts
- aspiration of a cyst with a fine sterile needle
- induction of luteinization of the cystic follicles: GnRH or hCG

-Can cause pyometra: only for bitches that will be neutered immediately after treatment.



Treatment

Two resons for cysts and tumor removal:

First, cure and try to restore fertility.

Second, secretion of high quantity of estrogens = cystic endometrial hyperplasia – pyometra complex, creating progressive non regenerative anemia.

- note carefully the time of the appearance of successive heats periods in bitch

- Progesterone treatment of bitches with functional follicular cysts puts the bitch at increased risk for the development of cystic endometrial hyperplasia/ pyometra, and is not advised. Use of GnRH (50 to 100 J.lg/bitch 1M q24-48h for up to 3 doses) or human chorionic gonadotropin (H.C.G.; II IU/Ib; 22 IU/kg, 1M, q24-48h) has been advocated as affective in inducing cyst regression or luteinization, although reported success rates for either vary (Table 298-I)Y GnRH docs not appear to be antigenic in the bitch and may be the preferred treatment.

- Case history

A 9-year-old female terrier dog

A dermatophyte culture, skin scrapes, and acetate strip examinations were negative for dermatophytes, parasites, and yeasts.

The owner and his family were free of skin problems.

The hair replacement was noticed within 5 months after ovariohysterectomy.

Fig. 1 Photograph shows symmetrical alopecia in the presented case which is prominent in the caudal aspects of thighs

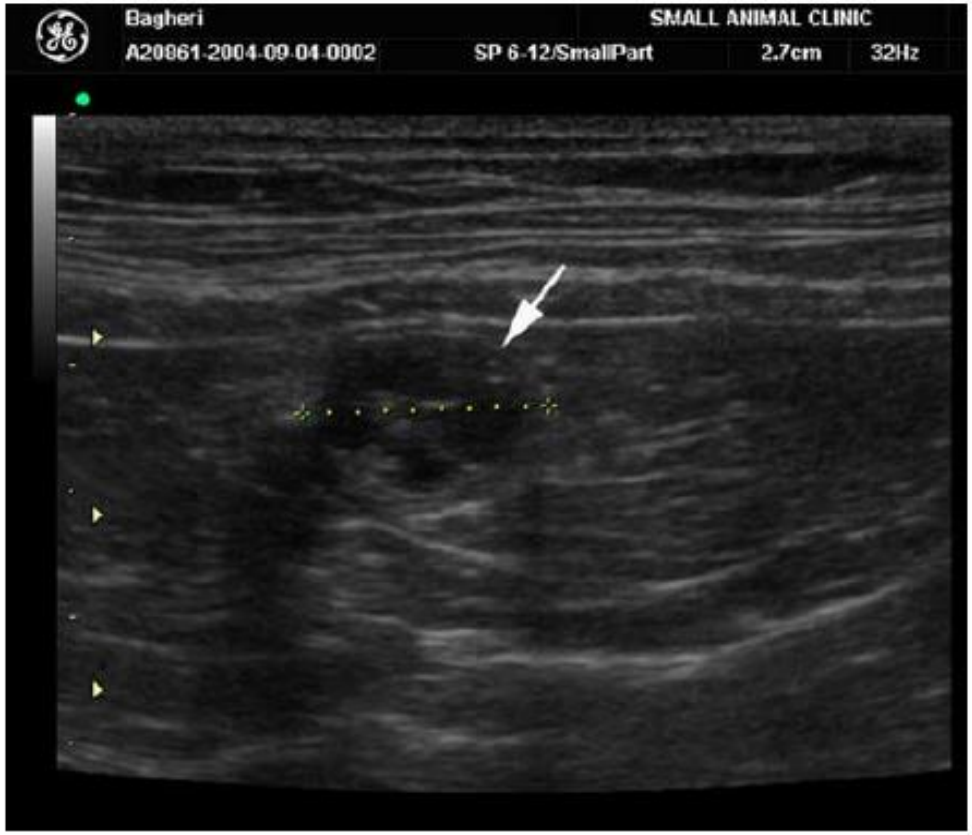


Fig. 2 Ultrasonography of the ovary using a linear array, 6–12 MHz transducer revealed multiple different size follicles within the ovary. Acoustic enhancement below the ovary is also evident confirming the cystic structure

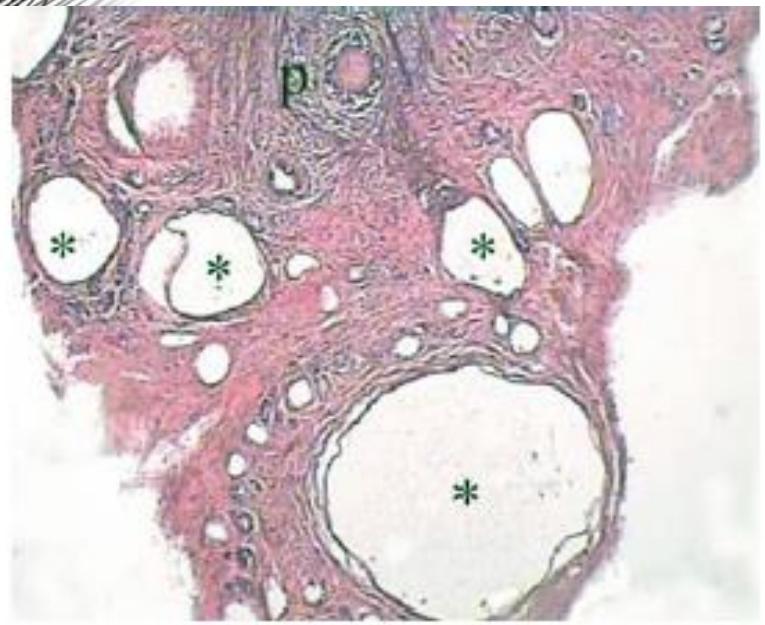


Fig. 3 Ovary: Longitudinal section; the ovary was enclosed in a relatively thickened capsule of stroma fibrous tissue, multiple large and small follicular cysts (*asterisks*), distributed throughout the cortex. The multi laminar primordial follicle (*P*) is obvious. H&E ×40

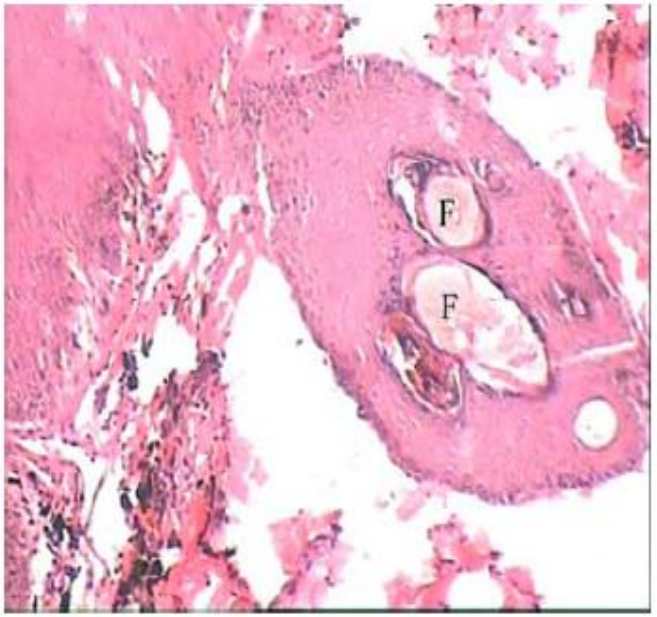


Fig. 4 Skin: epidermoid cyst; hyperkeratosis and dilation of follicles. Plug of follicular stratum corneum in a dilated hair follicles (*F*). H&E ×100