PREGNANCY IN DOGS

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BREEDING OCCURS

Breeding purposeful or accidental?

Purposeful (see Purposeful Breeding Options)

Accidental

INVESTIGATION

Perform early pregnancy (30 days gestation) diagnostics:
- Palpation: may be challenging until fetal skeletons ossify, starting at 45 days
- Serum relaxin: hormone in dogs made exclusively by the placenta; reliable at 30 days
- Ultrasonography: reliable at 30 days
- Radiography not useful for pregnancy diagnosis at this stage of gestation

Perform late pregnancy (55-60 days gestation) diagnostics:
- Ultrasonography to assess fetal viability and estimate gestational age
- Radiography to count fetuses

INVESTIGATION

Perform vaginal cytology* for presence of sperm. Presence of sperm confirms mating, although absence of sperm does not definitively rule out mating.

Terminate potential pregnancy or wait to confirm pregnancy

Termination

Pursue immediate treatment options:
- Spay (best option if no planned breeding future)
OR
- Medical treatment/resorption via estradiol cypionate or estradiol benzoate**

Wait for diagnosis

After 30 days, perform early pregnancy diagnostics:
- Palpation: may be challenging until fetal skeletons ossify, starting at 45 days
- Serum relaxin: hormone in dogs made exclusively by the placenta; reliable at 30 days
- Ultrasonography: reliable at 30 days
- Radiography not useful for pregnancy diagnosis at this stage of gestation

* AI = artificial insemination
** TCI = transcervical insemination
Pregnancy confirmed?

**YES**
- Termination via ovariohysterectomy (best option if no planned breeding future)
- Termination via medical treatment/ resorption:
  - Glucocorticoids
  - Prostaglandins (eg, cloprostenol)
  - Dopamine agonists (eg, cabergoline)
  - Prostaglandin + dopamine agonist
  - Aglepristone (not available in North America)

Perform follow-up:
- Recheck serum progesterone 4 days after starting mismating treatment; should be baseline
- Recheck ultrasonography 4-8 days after starting mismating treatment to document termination of pregnancy

**NO**
- Discuss responsible breeding options or future spay with owner

**PURPOSEFUL BREEDING OPTIONS**

Breeding should be timed and managed using vaginal cytology, vaginoscopy, and progesterone to determine luteinizing hormone surge, ovulation date, fertile period, and estimated whelping date. Insemination options include:

- Fresh semen (natural mating, vaginal AI, TCI)
- Chilled/shipped semen (vaginal AI, TCI)
- Frozen semen (TCI, surgical AI)

**Reference**


*Although negative predictive value of vaginal cytology within the first 24 hours of mating has been reported to be as great as the positive predictive value,1 the possibility of a false negative still warrants confirming pregnancy later. Therefore, the value of performing vaginal cytology is questionable.

** Must administer within 1 to 2 days of mating. Use caution with timing and dose. Adverse effects include aplastic anemia and pyometra.