Clinical Snapshot

Bronya Redden, DVM, DABVP (Canine/Feline)
East Lincoln Animal Hospital
Denver, North Carolina

CASE PRESENTATION

A 1-year-old female German shepherd mix presented with a pink mass in its vulva (A). The dog had not been spayed and had never had a heat cycle.

1. What abnormality do you see?
2. How might you classify this dog according to your findings?
3. What problems can this abnormality cause?
4. What is your recommended treatment?

(See page 245 for answers and explanations.)
Clinical Snapshot

ANSWERS & EXPLANATIONS

(Case presentation on p. 240)

1. The reddish finger-like structure protruding from the vulva is an enlarged clitoris resembling a penis with a bone (os clitoris).

2. This intersex (having the characteristics of both sexes) dog may be a hermaphrodite or pseudohermaphrodite. A pseudohermaphrodite has the gonads of one sex and the secondary sex characteristics and external genitalia of the opposite sex. A male pseudohermaphrodite has testicular gonadal tissue and genital organs with some female characteristics (phenotype). A female pseudohermaphrodite has ovarian gonadal tissue and genital organs with some male characteristics (phenotype). A true hermaphrodite has both testicular and ovarian tissue in various combinations. Phenotypic sex is determined by examination, gonadal sex is determined by histopathology, and chromosomal sex is determined by karyotyping and sex chromatin testing.

3. The main problem that this abnormality causes is sterility. Urinary incontinence or bloody discharge from the urogenital opening occasionally occurs.

4. The recommended treatment is surgical removal of the gonads and uterus as well as excision of the enlarged clitoris and os clitoris, if needed. In this case, the reproductive tract consisted of a uterine body and horns as well as two ovotestes (both testicular and ovarian tissue in the same gonad; B). A histopathologic examination revealed bilateral ovotestes and a persistent Wolff’s duct in the uterus, classifying this dog as a true hermaphrodite. Karyotyping was not performed because the dog was not purebred and the owner was not interested in its chromosomal sex.