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A case of female pseudohermaphroditism in a Dorset cross sheep
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A two- month-old Dorset cross ram presented to the University of California-Davis Veterinary Medical Teaching Hospital for evaluation and treatment of a scrotal hernia and castration. Palpation of the scrotum did not reveal the presence of testicles but on ultrasound examination the scrotum appeared to be filled with loops of bowel. Surgical exploration revealed the contents of the scrotum were not bowel but a portion of intact uterus and ovaries. The uterus was replaced, the inguinal rings closed, and scrotal ablation was performed. The lamb was allowed to grow until eight months of age when it was harvested.

At the time of slaughter the animal was small in stature compared to the rest of its cohorts and maintained a juvenile-sized penis. Swelling of the ventral peri-anal region was also noted. The urogenital tract and a muscle biopsy were collected for further evaluation. The tract had a complete uterus, with two fully functional ovaries and a blind-ended vagina. The bladder and urethra communicated with an infantile penis. The tract also contained what grossly appeared to be accessory sex glands.

Muscle samples used for genotyping revealed the animal had a 54XX genotype, with no evidence of chimarism. Histopathology of the gonads found follicular development with no evidence of testicular tissue. At this point the lamb was considered to be a female pseudohermaphrodite. Female pseudohermaphroditism is a rare occurrence in sheep and other domestic species. The causes of female pseudohermaphroditism are often linked to hormonal changes in utero but may also be the result of chromosome changes. In this case, linking the genital abnormalities to a hormonal cause is difficult because this animal has a normal female twin. This is one of few reports of intersexuality in sheep not related to freemartinism.

Selected references