

## Congenital reproductive abnormalities in sheep

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### ABSTRACT

Three cases of congenital abnormalities, namely Double external os, Uterus didelphys and Paraovarian cyst were observed from 250 reproductive tracts obtained from abattoir. The incidence of congenital abnormalities was 1.2% and found to be within the range reported in sheep.

**Key Words :** sheep, congenital abnormalities, reproductive tract

The problem of infertility in sheep and goats is comparatively of a much less magnitude than the cattle and buffaloes. However, significant reproductive losses do occur in sheep, even when nutritional inputs are optimal throughout the year and in the absence of reproductive infections. Such losses occur from the ewes that fail to breed because of abnormalities in the genital tract, uterine prolapse and those associated with parturition (Smith et al 1988). About 20-25% of ewes fail to conceive mainly as a result of anoestrous or repeat breeding (failure to conceive even after 2-3 mating with fertile ram) (Anon 1998-99). One of the reason for such reproductive wastages has been abnormalities of reproductive tract (winter and Dobson 1992). Slaughter house surveys have proved valuable in determining the incidence of anatomical obstruction among the various species (Al-Dahash 1977). Complete separation of the two uterine horns seems to be very rare. This study examines the gross anatomy of cervical canal obtained from sufficient range and number of slaughtered ewes that were representative of a large population of a wide catchment area.

The abattoir/slaughter house, mainly receiving native ewes and rams with small groups of younger prime lambs, was visited once per week. The reproductive organs were excised from the carcass with the aid of scalpel/ and pair of scissors within 5 to 10 minutes after

slaughter of the animals, washed immediately with sterile saline and packed over ice cubes in thermos flask. The tracts were transported to the laboratory and then examined for anatomical characteristics within 3 h of collection. After visual examination of cervix, anterior vagina, ovaries, fallopian tube, uterine horns and body each reproductive tract was opened by cutting through the cervix, uterine body and horn. Out of 250 tracts only 3 tracts were found to be abnormal (fig. 1-3) are presented below.

**a. Double external os :** This condition was present in only one tract (fig 1) The cervix had two os, and the remainder of the cervix appeared normal. Double cervix



Fig. 1 Double external os cervix

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Fig. 2. Uterus didelphys



Fig. 3. Paraovarian cyst

may interfere with reproduction but do not always cause infertility. However, at the time of parturition, foetal limbs may pass into both the openings of the cervix and may get stuck up there thus leading to metritis and infertility.

**b. Uterus didelphys :** This condition, also known as uterus bicorporbicollis (Mc Entee 1990), was recorded in one ewe. In this specimen (fig2) the cervix had two os leading to two independent horns which may be due to the failure of the fusion of paramesonephric ducts resulting in two separate cervical canals, with equal distribution of uterus. Authors could find only one previous description of the condition in sheep (Dutt 1954).

**c. Paraovarian cyst :** Paraovarian cyst (fig3) was present in one ewe . The spherical cyst measuring approximately 2 cm in diameter was calcified and was associated with the right ovary.

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