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Morphometry of Female Reproductive Tract in Small Ruminants Using Ultrasonography

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Abstract : Understanding anatomy of female reproductive organs is very much important to identify any variation in disease condition. Therefore, this study was conducted to determine the morphometry of female reproductive tract in small ruminant using ultrasonography. The reproductive tracts of 2l does and 20 ewes were collected, and both gross and ultrasonographic image measurements were performed to study morphometry of cervix, body of uterus, horn of uterus and ovary. Water bath ultrasonography technique was used with trans-abdominal linear probe for image measurements. Results revealed significant ($P<0.001$) variation among gross and image measurements of cervix, body of uterus and ovaries in does whereas, significant ($P<0.001$) variation existed between gross and image measurements of ovaries diameter in ewes. Gross measurements were proportionately higher than image measurements in both species. The mean length and width were found higher in right ovaries than those of left ovaries. In addition, the diameter of right ovaries was higher than those of left ovaries in both species. Pearson's correlation revealed a positive relation between two measurements. Moreover, it was found that echogenicity varied with reproductive organs. This is a model study. This study may help to identify female reproductive structures by trans-abdominal ultrasonography.

Keywords : female reproductive tract, morphometry, small ruminants, ultrasonography
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