Title ***Biometry of female reproductive tract of Nili- Ravi buffalo***
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Abstract:

Knowledge of biometry of female reproductive tract of Nili Ravi buffalo is very important for artificial insemination, pregnancy diagnosis, estrus detection and to deal with infertility problems. Animals were divided into four groups based on age and cyclicity, which were non cyclic heifer, cyclic heifer, non cyclic adult and cyclic adult. Each group contained ten reproductive tracts collected from government slaughter house at Lahore. Anatomical parameters of normal female reproductive tract (ovary, oviduct, uterine horn, intercornualligament, uterine body and cervix) were recorded.

Mostly the shape of the ovary was almond in Nili Ravi buffalo except one animal where the shape of the ovary was oval. Length, diameter, circumference, weight, thickness, and ovarian bursa diameter of left and right of cyclic adult were significantly higher than that of non cyclic adult and non cyclic heifer. Mesovarien length of left and right ovary of cyclic adult, non cyclic adult and cyclic heifer was significantly higher than that of non cyclic heifer. There was no significant difference in mean number of follicles, outer diameter, total diameter and total length on both ovaries among different groups. There was no significant difference in number of regressed, developed and hemorrhagic CL on both ovaries in all groups. Length and thickness of left and right oviduct of cyclic adult were significantly higher than those of non cyclic adult and non cyclic heifer while, in case of oviduct weight there was no significant difference among different groups. Outer length, bifurcation lepgth, total length, diameter, weight, circumference and uterine artery diameter of left and right uterine horn of cyclic adult were significantly higher than those of non cyclic adult, non cyclic heifer and cyclic heifer. In the same way that of cyclic heifer was significantly higher than that of non cyclic heifer. Thickness of left uterine horn wall of cyclic adult was significantly higher than that of non cyclic heifer and non cyclic adult but in case of right uterine horn there was no significant difference in thickness among different groups. Mean number of caruncles of left and right uterine horn as well as length of dorsal and ventral intercornual ligament of cyclic adult and non cyclic adult was significantly higher than that of non cyclic heifer and cyclic heifer. Mean length, diameter, circumference, thickness and weight of uterine body and cervix of cyclic adult were significantly higher than those of non cyclic adult and non cyclic heifer. Mean length, diameter, weight, diameter and circumference of uterine body and cervix of non cyclic adult and cyclic heifer were significantly higher than those of non cyclic heifer. There was no significant difference in mean number of cervical rings among different groups of Nili Ravi buffalo while shape of the cervix was cylindrical in all groups.

Length of cervix protrusion in vagina of cyclic adult and non cyclic adult was significantly higher than that of non cyclic heifer and cyclic heifer and that of cyclic heifer was significantly higher than that of non cyclic heifer. There was no significant difference between left and right parts of female reproductive tract except ovarian lengt, ovarian diameter, ovarian bursa diameter and number of caruncles.
