Title	***Biometrical and Histological Studies of Testes in Different Age Groups of Azikheli Buffalo Bulls***
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Abstract:

Postnatal anatomical and histological studies on the testis, its tubular system and its different paranchymatous cells at different ages are important to properly understand the sequence of their growth and development. Different measurements of various spermatogenic and sustenticular cells vary according to the age and length of cycles of the seminiferous epithelium and within different species of animals. Different age group animals were used for this study. Before slaughtering biometrical study of scrotum and testis were performed and after slaughtering, testis were removed, weighted and fixed. Representative samples were taken, dehydrated and embedded in paraffin. Sections (5um) were stained with haematoxylin-eosin and examined under light microscope. Observations were made from the well-stained sections of the testis of various age groups and photomicrographs were taken and used for the cytometric measurements. The quantitative data were recorded properly for analysis. Data were subjected to statistical analysis using ANOVA. Tukey's HSD were used in case of significance differences among different age groups and significance level were set at P<O.05. Our analysis in testicular biometric parameter in Azikheli buffalo bull body weight, SC, TW, A vg L, A vg Wand TV are significantly different in different age groups. Study revealed positive correlation between various testicular parameters and body weight. Our analysis in testicular biometric parameter in Azikheli buffalo bull body weight, SC, TW, A vg L, A vg Wand TV are usefull indicator for selection of bulls for breeding soundness examination. The morphometric and histometric characteristics mentioned here provide more basic picture of the breed, but plans for studying on genotypic distinctiveness and for in situ participatory conservation of the Azikheli were suggested procedures to secure its proper conservation. Spermatogenic potential at specific age was determined based upon volume of seminiferous tubule and ratio of different cells of testes. A baseline data regarding the reproductive efficiency of Azikheli bulls were attained from the present study which will be breakthrough in research and development of the indigenous breed.

Because of the major association between testis size, particularly scrotal circumference, testicular dynamics and semen characteristics, combinely use of these information, particularly in those bulls having less than 5 years of age, can be helpful for breeding and reproductive soundness estimation of buffalo bull. More studies are needed to assure the significance of scrotal circumference as an indicator of potential fertility of buffalo bulls as evaluated by thequality of spermiogram and age of maturity of their female offspring. In Azikheli buffalo bulls important characteristics related to testicular function, spermatogenic proficiency investigated so far. To understand further reproductive biology and spermatogenic efficiency, strategy should focus on the reproductive behavior of the animal.
