

Histomorphometrical Studies of Exocrine part of Pancreas in Prenatal Goat (*Capra hircus*)

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Abstract—The present study was conducted on the 24 healthy and normal embryos/ foeti of non-descript goat (*Capra hircus*) varying from day old to 150 days of gestation. The embryo/ foeti were assigned into three groups according to their gestational ages; Group I (0-50 days); Group II (51-100 days); Group III (101-150 days). The tissues were fixed in 10% buffered formalin and were processed by routine paraffin embedding technique. Five to Six micron thick paraffin sections were stained by hematoxylin-eosine method. The micrometrical parameters were recorded with the help of computerized Motic 2.0 software. Up to 69 days of gestation, the foetal goat pancreas did not show the process of acini formation. The process of acini formation was first observed at 76 days of gestation. In group II developed acini had an average diameter of $20.22 \pm 2.43 \mu\text{m}$ with the lumen having average diameter $6.98 \pm 0.52 \mu\text{m}$. The average height of the acinar cells was $6.62 \pm 0.42 \mu\text{m}$ with nuclear size of $2.93 \pm 0.31 \mu\text{m}$. In group III developed acini had an average diameter of $19.36 \pm 2.17 \mu\text{m}$ with the lumen having average diameter $6.46 \pm 0.71 \mu\text{m}$. The average height of the acinar cells was $6.44 \pm 0.57 \mu\text{m}$ with nuclear size of $2.86 \pm 0.26 \mu\text{m}$.