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## Age related histomorphometric changes in the rumen and reticulum of the dromedary camel (*Camelus dromedarius*)

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**H**istomorphometric studies on the stomach of camel (*Camelus dromedarius*) with reference to the age have not been studied before. Histomorphometric measurement of rumen and reticulum was performed to know the differences which occur due to increasing age of the animal. 48 camels of both the sexes were divided in four groups (n=4). The age of the animals used in this ranged from one year to sixteen years. 1 to 4 years old animals were included in Group 1, 5 to 8 years old in group 2, 9 to 12 years old in group 3 and 13 to 16 years were kept in group 4. The samples were collected from slaughter house located in Al Ain. Fresh samples were collected immediately after slaughter from Rumen and Reticulum. Samples from rumen were collected from glandular (caudodorsal sac and cranioventral sac) and non-glandular regions. Samples from reticulum were collected from its initial and final part. Samples were fixed in formalin, dehydrated in alcohol, cleared in xylene embedded in paraffin. 5 µm sections were made and stained with Hematoxylin and Eosin. Measurements of mucosa, submucosa, muscular layers and serosa were performed for rumen and reticulum. Results suggest that significant difference were observed ( $P < 0.05$ ) in all the studied parameters in caudodorsal sac and ventral part of the rumen and reticulum as well. Maximum values were observed in group with age 12-14 years. Whereas in cranioventral glandular sac, mucosa was found to be non-significant ( $P > 0.05$ ) and in dorsal part of rumen, mucosa, inner muscular layer and serosa were observed as non-significant ( $P > 0.05$ ). Hence it is concluded that, mucosa, submucosa, muscularis and serosa of the rumen and reticulum also enlarge with increasing age of the animal.

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