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Self-suckling on goats: teat histological changes

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One of the most frequent anomalous behaviors, in cows and goats, is called self-suckling whose causes, consequences, just as prevention or limitation have been deeply studied. However, its histological modifications have not been studied. For this reason, the main objective of this study was to evaluate morphological alterations in goat teats associate with self-suckling. Samples were obtained from 36 goat teats (18 animals), that were classified in control group (n = 7) and self-suckling group (n = 29). This study was divided into two basic experiments: the first was based on the measure of the study area (epidermis, connective and mucosa). For this purpose, it was used all the samples from the self-suckling group (29 samples).The second experiment was design in order to describe the Fürstenberg´s rosette using the animals that presented a higher self-suckling frequency (6 samples), zero self-suckling frequency (7 samples) and the random control group (7 samples). Transverse and longitudinal sections were obtained from each teat and processed with hematoxylin and eosin staining and immunohistochemistry techniques, in order to study the different histological areas (epidermis, connective and mucosa). The results showed a positive correlation between the epidermis percentage and self-suckling frequency but it was not observed when the mucosa was correlated with this anomalous behavior. Metaplasia changes in the Fürstenberg´s rosette were showed in subjects with a high suction rate; 66% of them had an increased cellular activity at the same tissue. In conclusion, the histological changes reinforce the theory that self-suckling behavior must be prevented in order to avoid milk losses by galactophagy and undesirable changes in teats.