SOME HISTOPATHOLOGICAL FINDINGS IN THE TEATS OF COWS

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Present work is but one part of a study, "Histopathological studies on the teats of cows", now under progress. The study has made the object of indicriminately collected slaughtered cows. Present paper describes microscopical findings in 13 cows (5~12 years old; 52 quarters; 51 teats). Each of the findings was well worthy of notice.

Significant lesions in the teats were as follows: alteration of the blood vessel walls (edematous loosening and swelling); regressive changes of smooth muscle fibers (hydropic degeneration); degenerative changes in the nerve bundles, i. e., edema in the nerve bundles, degeneration of nerve fibers, appearance of cells participating in clearance and removal, etc.; edema in the lamina propria and submucosa of the teat cistern; edema in the lamina propria of the streak canal; desquamation of epithelial cells of the mucosa of the teat cistern (erosion and ulcer), resulting from a non-inflammatory process; calcification of the lamina propria and submucosa of the teat cistern; calcification in the walls of the blood vessels; hyperkeratosis of the streak canal epithelium; abnormal growth (neoplastic?) of smooth muscle cells; abnormal growth (neoplastic?) of cells of the blood vessel walls; metaplasia of the mucous epithelium of the teat cistern; etc. In the gland portions, also, the blood vessels, smooth muscle bundles and nerve bundles showed the same changes as those in the teats described above. The blood vessels, smooth muscle bundles and nerve bundles which showed severe changes qualitatively and quantitatively were observed in both the quarters with and without inflammation in the gland portions and/or the teat portions.

In the 12 cases, several kinds of nerves innervating the mammae were also investigated. The nerves were of the lumbar nerves (L_1~L_4), the spinal ganglia (L_1~L_4), the iliohypogastric, ilioinguinal and genitofemoral nerves, and the lumbar nerve branches being distributed in the bodies of the mammae. In these nerves, also, qualitatively the same degenerative changes as those observed in the teats were found.