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IGF-I and II expressions in fibropapilloma developed in naturally infected with bovine papillomavirus type-1 (BPV-1)

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Fibropapilloma are defined as benign proliferative and neoplastic changes of skin in cattle. Fibropapilloma are frequently evaluated together with papilloma at the same topic. In ethiopathogenesis of viral induced papilloma, bovine papillomavirus (BPV) has a role. Insulin-like growth factors (IGFs), which have similar molecular structure to proinsulin playing important roles in cellular proliferation, differentiation. IGF-I makes also transformation in cell to be infected through by some viral proteins. In the study, it was aimed to show combine role of IGFs as possible trigger and BPV-1in ethiopathogenesis of bovine fibropapilloma. Suspected samples from the fibropapilloma were collected from different parts of body. PCR confirmed to the presence of L genes of BPV-1. Fibropapilloma was diagnosed in histopathologic examination. Feulgen reactions were used to demonstrate for presence of virus in neoplastic epithelial and and fibrocytes. IGF-I and –II expressions were described in tissues with fibropapilloma. Macroscopical and histopathological findings of fibropapillomatouse changes were described in masses collected from skin of ears and palpebra, neck, hindlimbs, mammary region and teats and ventral abdominal region of fifteen cattle which were varied from 14 to 23 month olds. Hyperkeratosis, parakeratosis, acanthosis, degenerative changes and inflammatory cell infiltrations and vascularization were seen to attended to neoplastic cells by several levels. IGF-I positivities were stronger and distributed in epidermis and dermis when compared to IGF-II positivities. Positivities were observed in cytoplasms and membrans of all layer cells in epidermis and in only membrans of fibrocytes and fibroblasts in addition to collagen bundles. It is interpreted that IGF-I and IGF-II have an effect as much as BPV-1 in proliferation cells constituting fibropapillomatouse changes in epidermis and dermis.

Biography

Mehmet Eray Alcigir has completed his PhD thesis in Department of Pathology, Faculty of Veterinary Medicine, Ankara University in 2011. PhD Thesis: "Evaluation of The Pathomorphological, Immunohistochemical Findings and *in-situ* PCR in Experimental Adenovirus Infections in Chickens". Main areas have been about neoplasia, genital system and central nervous system disorders and experimental diseases in laboratory animals. He has been many experiences on immunohistochemical methods, *in-situ* PCR and chromogenic ISH. He has been working as a Doctor since 2012. He is also responsible for Administrator in Department of Animal Welfare of Labaratory Animal Unit, Faculty of Chemistry and Faculty of Science, Ankara University.

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