NEW INSIGHT IN PAPILLOMAVIRUS-INDUCED SKIN AND MUCOUS MEMBRANES CARCINOGENESIS

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Papillomaviruses (PV) are small DNA viruses that induce a wide variety of skin and mucous membrane hyperplastic lesions. They are considered important carcinogens in humans and some high-risk PVs are directly responsible for the development of cervical cancers in women (1). On the other hand, the role of PVs in the development of cutaneous squamous cell carcinoma (SCC) is not as definite (2). There is however emerging epidemiological evidence to suggest that PV might play an important role in skin cancerogenesis, especially in epidermodysplasia (EV) associated-one. Evidence also suggests that ultraviolet (UV) radiation contributes to the cancerization of some PV-associated skin cancers (3). Some animals models support the causative role of PV in the induction of skin SCC: A few decades ago, it was demonstrated that cottontail rabbit PV (CRPV) are able to induce skin cancers in rabbit (4). …..

CNINE VIRAL PLAQUES

A few years ago Nagata described cases of canine viral pigmented plaques and suggested that the condition could be the counterpart of human EV (8). Fourteen cases of this condition have now been reported. Affected dogs usually present pigmented macules or slightly hyperkeratotic plaques. Carcinomatous transformation (In situ and invasive carcinomas) has been frequently reported in affected dogs (6 out of 14 cases).

FELINE VIRAL PLAQUES

Feline viral plaques in older or immunosuppressed cats bear also similarities with human EV or canine pigmented viral plaques (9). Dysplasia or atypia is not present but feline viral plaques often coexist in the same animal with bowenoid in situ carcinomas. As …..

REFERENCES

1. …..
2. …..
3. Harwood CA,Proby CM. Human papillomaviruses and non-melanoma skin cancer. Curr Opin Infect Dis 2002; 15(2): 101-114.
4. Breitburd F, Salmon J, Orth G. The rabbit viral skin papillomas and carcinomas: a model for the immunogenetics of HPV-associated carcinogenesis. Clin Dermatol 1997; 15(2): 237-247.
5. …..
6. …..
7. …..
8. …..
9. Gross TL, Ihrke PJ, Walder EJ, Affolter F. Epidermal tumors. In Skin diseases of the dog and cat. Gross TL, Ihrke PJ, Walder EJ, Affolter F. (Eds). Blackwell Science Ltd, Oxford 2005, pp. 562-603.
10. …..