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**LS-11-P-1431 Detection of Survivin in the Skin of Male Albino Rats at Different Ages: Histological and Immunohistochemical Study.**

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Background and Aim of work: The epidermis is a self-renewing stratified squamous epithelium that forms the outer most component of the skin. A balance between epidermal cell proliferation, differentiation and apoptosis preserve epidermal homeostasis. A potential inhibitor of apoptosis has been recently identified as survivin. This study was designed to detect the presence of survivin in normal skin of male rats at different stages of postnatal development.

Materials and Methods: This study included 30 male albino rats equally classified, according to their ages, into 6 groups: zero, five, ten, fifteen, twenty and sixty day- old. Skin specimens were obtained from the back of all animals, processed, sectioned and submitted to H&E and immunohistochemical staining for survivin. The area percent and the optical density of survivin in the epidermis, dermis and hair follicles were detected using image analyzer and were statistically analyzed.

Results: Survivin immunopositivity was detected mainly in the nuclei of basal as well as prickle and granular cell layers of epidermis. In the dermis, survivin immunostaining was seen in the fibroblasts, cells of sebaceous glands as well as in the germinal, inner root sheath and outer root sheath of hair follicles. The area percent of survivin in both epidermis and dermis was higher at young ages then gradually decreased towards adulthood with a second rise demonstrated at age of sixty days.

Conclusion: Survivin exists in normal skin at different stages of postnatal development. Its existence is greatly confined to cells involved in mitosis. Thus, its anti-apoptotic role seems to be connected to the highly proliferating cells. Understanding the role of survivin in the skin would help to approach new strategies in prevention and therapeutics of skin cancer and other skin inflammatory diseases.