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Histopathological effects of rat saliva on cutaneous wound healing

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The effectiveness of wound licking with saliva on wound healing was evaluated in rats in this study. Saliva plays an important role in cutaneous wound healing and soft tissue. This may be because of existence of epidermal growth factor (EGF), nerve growth factor (NGF) and secretory leukocyte protein inhibitor (SLPI). Probably licking in animals such as rat because of EGF and others growth factors deposit onto the wound area enhances wound healing of skin. In this investigation, 24 seven-month years old female rats were randomly divided to four groups. Using aseptic surgical technique, in each rat, 2 incisions, 4 cm length, were made on the skin of the abdomen that animal could licked them as experimental groups and back of the neck as control incisions groups. Biopsies of the wounds were performed on days 3, 7, 14 and 21 postoperatively and were prepared for histopathological study. Abdominal incision showed infiltration of leukocytes, a few neutrophils, more macrophages, lymphocytes and beginning of re-epithelialization on postoperative day 3. There was no significant differences between experimental and control incisions on day 3 after operation except more dermal edema in abdominal incisions. Angiogenesis and proliferation of fibroblasts were more extensive on postoperative day 7 and 14 in abdominal wounds.

On postoperative day 21, in abdominal incisions, predominant cells were fibrocytes that indicates hyperemia, severe angiogenesis and no hair follicles forming. These findings suggest that saliva could enhance cutaneous wound healing process.

Key words: saliva, wound healing, rat, skin

The role of hexachlorocyclohexan(HCH) pesticides on serum vitamin A and lipid peroxidation on serum and liver of broiler

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Lindane is an environmental persistent pesticide that has extensive use in spite of restriction it's applying. With regarded to, lindane residue in meat, milk and egg and its deposition in fat body animals, and its high persistence in the environment, Lindane was received special attention exposure to pollutant, in addition to threat poultry health, it can affect quality and quantity of meat. two of the important factors of meat quality that receive attention in this investigation are level of peroxidation and amount of vitamin A. In this study, 30 day old Ross broiler chicks were divided into 5 groups, Which 5 chickens in each group. the chicken in groups 1 to 4 recieved diets, contained 150,300, 600, and 900 ppm respectively, for 7 days. After slaughter and sampling this results were obtained: Although serum lipid peroxidation was increased, but this increasing was not significant. The rate of serum vitamin A was not in a significant manner. In spite of decreasing serum beta-carotene but this decreasing was not significant. The rate of vitamin A in liver was decreased but this change was not significant. thus, it would be concluded that lindane have no significant effect on serum lipid peroxidation level and rate of vitamin A and beta-carotene in liver and serum.

Keywords: Lindane; Vitamin A; Beta carotene; Lipid peroxidation