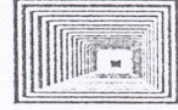




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ABSTRACTS

# EFFECTS OF TOPICALLY APPLIED BIOADHESIVE CARRIERS ON THE ZINC LEVELS OF RABBIT FULL-THICKNESS SKIN WOUNDS

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We previously published the effect of polyacrylic acid gel and gel+epidermal growth factor treatments on full-thickness incision wound zinc levels of rabbits for 5 days. Zinc levels of treated groups were lower than untreated control wound. We suggested that the gel concentrations, pH, tonicity and preservation conditions effected the expected Zn accumulation in the wound area. In this study we plan to search the effect of two carbopol preparations in different concentrations, with arranged pH but with or without arranged tonicity and containing different preservatives on the zinc levels of incision wounds.

The full-thickness skin wounds 4 cm width were inflicted on 22 New Zealand albino rabbits back skin, under xylazine+ketamine anesthesia. 2 groups of the wounds treated with carbopol preparations, 20 µl for each wound twice a day for 5 days. The wound tissues were kept at - 30°C temperature until the measurements were made by AAS. The results are shown on Table 1.

Table 1:

The effects of carbopol preparations on the zinc level of skin wounds and controls.

Treatment (n)	Wound zinc level µg.g <sup>-1</sup> dry weight
Normal skin (1)	43.7 ± 41.7
Untreated wound tissue (9)	74.7 ± 7.5
Viscotears <sup>R</sup> treated (6)	65.2 ± 16.6
Thilo-Tears <sup>R</sup> treated (6)	69.6 ± 20.3

The values expressed as Mean ± standart deviation  
Treatments; twice a day 20 µl for each wound for 5 days.

There was no statistical difference between treated and untreated wound zinc levels.  
Conclusion; We suggest that carbopol gels are suitable carriers for active materials if concentration, pH, tonicity and preservation properties are arranged.