

Effects of Local Haemostatic Agents on Tissue Parameters in Warfarin Treated Rats

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Summary: The aim of this study is, evaluation and comparison of the effect of two brand new local haemostatic agents' biochemical and hystological short term soft tissue healing which is used in warfarin treated oral surgery patients to control bleeding, to act as a matrix to organise the clot by filling bony cavities and to prevent from secondary bleeding. For this purpose, we operated totally 24 Wistar-albino rats that 12 of which was systemically varfarin treated and the other 12 was leaved as the control group. So it is tried to have a model that correlates with patients taking warfarin systematically regularly. After the shaving procedure on the dorsal skins of experimental animals, 3 incisions at 2 cm size are performed in 2 cm apart from each other has been done perpendicular to the head-tail direction. A tissue sample at 2x20 mm size has been taken from the side of the wound area for the biochemical and histological research. At the incision wounds performed on the dorsal skins of experimental animals, the wound in the middle has been leaved without any haemostatic agent and one of the wound area that is close to head or tail has been set with 40 mg of chitosan granules (Celox®) and one of the wound area that is close to head or tail has been set with 25 µl of folcloric plant extract (Ankaferd Blood Stopper®). The tissue samples taken at the day surgery performed, postoperative 4th day and postoperative 8th day are evaluated in biochemical and hystological tests. As a result, both local haemostatic agents' haemostatic effect thought to be satisfactory. In tissue samples taken from the wound areas set with chitosan has not shown epitalization completely even till the 8th day. When biochemical results are noted, it is shown that aimed PT has been reached with the current warfarin dose. Tissue samples taken from the the experimental animals treated with warfarin which were set with ABS has shown significantly high collagen levels. Tissue samples taken from warfarin treated wound areas with has shown generally negative signs of healing according to control group.

Key words: Warfarin, chitosan, ankaferd blood stopper, GSH, kollagen