



Effects of Chymotrypsin Therapy on Alpha 1-Anti Trypsin and Glutathione Peroxidase in Facial Skin of Rabbits Injected by Hyaluronic Acid



ABSTRACT :

THE USE of hyaluronic acid in the treatment of several skin and cosmetic illnesses is very common, and this is frequently followed by the appearance of some side effects. Doctors are looking for chemicals that can reduce the occurrence of these adverse effects. The goal of this study is to look into the effect of using chymotrypsin in alpha-1-antitrypsin and glutathione peroxidase when using hyaluronic acid in skin of rabbits. Materials and procedures: There were four groups of 30 rabbits. The first group served as a negative control group and received no therapy. The second group was a positive control group that received only hyaluronic acid injection. The third group received hyaluronic acid injections together with chymotrypsin. Blood and skin samples were collected 24 and 72 hours following treatment, respectively. This was done after anesthetizing the rabbits and dissecting them in order to obtain blood samples and serum, as well as histology section from the skin in order to do histopathological examination. The results revealed decreasing inflammation, as reduced the infiltration of inflammatory cells in the skin, increased the levels of glutathione peroxidase and alpha-1-antitrypsin in the third group of combination of chymotrypsin with hyaluronic acid when compared to with groups that were not treated with chymotrypsin.

Conclusion: chymotrypsin when combined with Hyaluronic acid, exhibits beneficial effects while reducing the adverse effects of hyaluronic acid.