INTRODUCTION

Zygomatic bone fractures are the second most frequent facial fractures after nasal fracture. Many techniques were used in the treatment of the zygomatic bone fractures (1).

METHODOLOGY

The aim of the study was to compare both clinical and histological healing performance of histoacryl versus conventional micro-plates in ZMC fracture in rabbits. The study included twelve New Zealand white rabbits. Animals were divided equally into two main groups: group A (n=6) (control group); ZMC fracture was fixed with micro-plates and screws. Group B (n=6) (study group); ZMC fracture was fixed with histoacryl.

RESULTS AND DISCUSSION

Clinical results showed no infection or mobility in any animals of both groups. Histological results, by the end of the first week, the control group showed mature bone formation at the fracture area, where they reported no mobility in all of the examined rabbits.

The histoacryl group exhibited complete closure of the fracture site with mature lamellar bone. These results were confirmed by histomorphometric analysis, there was increase in the percentage of bone surface area in the histoacryl the mean was (49.55 and 65.04) in 1 and 4 weeks respectively while in control group (46.40 and 56.40).

At the end of the first and fourth weeks, three rabbits from each group were sacrificed. The treatment sites were evaluated Clinically, Histologically, and Histomorphometrically.

RESULTS AND DISCUSSION

Comparison between the two studied groups according to foreign body reaction.

CONCLUSION

The application of histoacryl to bone defects shows easy and adequate rigid fixation to allow bone healing and maintain the original contour of the zygomatic bone comparable to the conventional micro-plates.

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