Comparison of classical surgery and sutureless repair with duraseal or fibrin glue for duodenal perforation in rats. [Turkish]

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Abstract:

The purpose of the study was to compare classical primary suture repair and sutureless repair with fibrin glue or DuraSeal adhesion barrier for the closure of duodenal perforation in rats. METHODS Forty adult female Wistar Albino rats weighing between 250-300g were randomly divided into four equal groups. Primary repair, primary repair and omentoplasty, or application of fibrin glue or DuraSeal adhesion barrier was performed in each of the four groups, respectively. The bursting pressure, tissue hydroxyproline levels and histopathology were evaluated. RESULTS Bursting pressure values of the primary repair and primary repair and omentoplasty groups were significantly higher than in the fibrin glue and DuraSeal groups ($p<0.001$). There were no significant differences between the experimental groups regarding hydroxyproline levels and istological parameters. CONCLUSION The sutureless methods (Fibrin glue, DuraSeal) have no superior effects when compared with the conventional repair techniques. We observed similar results between the sutureless repair groups; thus, DuraSeal can be considered an alternative to fibrin glue for this purpose. This suggestion must be supported with new studies, however, which would be planned with other wound healing markers and different designs.