The laparoscopy splenic injury repair. The use of fibrin glue in a heparinized porcine model. [Portuguese]

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Abstract:

Purpose: To investigate the effectiveness of fibrin glue (laparoscopic via) into promote the hemostasis of a spleen injury on a heparinized porcine model. Methods: Eighteen Landrace porcine were submitted to laparoscopic spleen injury and randomly distributed: GHA (heparin plus adhesive), GH (heparin without adhesive) and GS (Sham - without heparin or adhesive). Ten minutes before the surgical procedures a single IV dose (200UI/kg) of heparin sodium was administrated only to groups GHA and GH. In the GHA, adhesive was applied after the mechanical injury and recorded the time until the polymerization and clot formation. Results: No significant differences occurred among the groups (Fisher test) considering the weight and surgery time. The blood amount in the abdominal cavity on GH was significantly higher in comparison to the sham group and especially with the GHA ($p<0.004$). No significant differences were observed in the body temperature, heart rate, cardiac output, means arterial pressure, pulmonary artery pressure during the experiment. The activated partial thromboplastin time (APTT) was lower in the GHA in comparison to GH ($p<0.003$). Conclusion: The fibrin biological adhesive applied by laparoscopy is effective for hemostasis of minor spleen injury in a porcine model under the effect of anticoagulant drug.