Intraoperative use of the absorbable fibrin adhesive bandage: Long term effects.

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Publication Date: 1999

Abstract:

Purpose: The absorbable fibrin adhesive bandage (AFAB) reduces acute blood loss in experimental trauma models, but the effects on wound healing and subsequent function have heretofore not been investigated. Retropubic prostatectomy was selected to evaluate short and long term effects of using the AFAB intraoperatively. Materials and Methods: Dogs undergoing prostatectomy were randomly assigned to one of four treatments: CONTROL- sponges and manual pressure were applied after transecting the prostatic pedicles. Sponges were removed when the prostate was delivered. Vessels were isolated and ligated if bleeding continued after removal. AFAB-hemostatically active bandages were applied to the prostatic bed prior to sponges and pressure. Additional bandages were applied at the urethrovesical junction after completing the anastomosis. PLACEBO- visually identical (hemostatically inert) bandages were applied in an identical fashion. LIQUID SEALANT- concentrated thrombin and fibrinogen solution was applied to the vessels prior to sponges and pressure. Additional sealant solution was applied around the anastomosis. Results: Blood loss and time to achieve hemostasis were significantly less in the AFAB group compared with the other treatments. There were no differences in days to anastomotic integrity, continence, or intra-abdominal adhesions at necropsy six weeks later. Conclusions: The AFAB can reduce surgery time and blood loss, with no decrement in wound healing or subsequent function.