Laparoscopic splenic biopsy--porcine to human studies--using a fibrin sealant technique.

Authors: Hui KY, Robinson SM, Amer A, Wallis JP, White SA

Publication Date: 2013

Abstract:

INTRODUCTION: Splenic biopsies are not routinely performed because of the risk of severe hemorrhage. The aim of this study was to explore the feasibility of performing laparoscopic splenic biopsies using a fibrin sealant in pigs and then to translate this technique into the clinical setting.

METHOD: Four German Landrace pigs underwent a laparoscopic splenic biopsy using a fibrin sealant to occlude the needle tract. Time to achieve hemostasis and postoperative hemorrhage were assessed.

RESULT: The average time to achieve haemostasis was 15 s (range, 8 to 25 s) with no hemorrhage from the needle tract observed. Subsequently this was translated into the clinical setting where a patient also underwent a laparoscopic splenic biopsy without any adverse effect.

CONCLUSIONS: Laparoscopic splenic biopsy with the application of a fibrin sealant is a safe and efficient technique.