

Closure of ascites leaks with fibrin glue injection in patients with end-stage liver disease.

Authors: Sadik K.W., Laibstain S., Northup P.G., Kashmer D., Schmitt T.M., Bonatti H.J.R.

Publication Date: 2011

Abstract:

Background: Ascites leaks (AL) in patients with end-stage liver disease (ESLD) are associated with significant morbidity and mortality regardless if they are medically or surgically managed. Patients and Methods: In a pilot study, 14 ESLD patients with AL underwent treatment with fibrin glue injection around the leak after failing conservative therapy. The end point of this study was the cessation of AL in the short term and the maintenance of a leak-free abdomen in the long term, allowing for medical optimization of the patients. Results: Median age of the 10 men and 4 women was 50 (range 26-67) years. Underlying ESLDs were chronic hepatitis C (n=5), alcoholic LD (n=2), cryptogenic cirrhosis (n=2), and miscellaneous (n=5). There were six leaking incisions posthernia repair (three umbilical and three inguinal), two leaking/ruptured umbilical hernias, four leaking paracentesis sites, one leaking Jackson-Pratt (JP) drain canal, and one leaking laparoscopic trocar site. Average AL volume per day was 1000 (range 400-2000) mL. All leaks were immediately resolved with a 3-5 mL fibrin glue injection. Five recurred and required a second injection (four within 24 hours). Mental status improved in 7 patients (West Haven Criteria: grade II to I [n=6], grade III to I [n=1]). Median model of end-stage liver disease scores improved from 23 (range 8-33) to 20 (range 14-26). There were no infections, bleeds, or other injection-related complications. Average follow-up for these patients was 441.6 days (range 2-852). Five patients underwent liver transplant (LT) median 15 (range 4-270) days postinjection; 2 of them died. Another 3 patients died (2 from sepsis and 1 from metastatic cancer). Conclusion: Fibrin glue injection for the control of AL is a simple and safe bedside procedure that quickly controls AL, allowing for patient recovery in anticipation of

