



Western Surgical Association 2020 Annual Meeting

Monday, November 9, 2020
4:00pm – 6:15pm Pacific Time
– Virtual Meeting --

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Q 4. TECHNIQUES AND OUTCOMES OF COMPLEX ABDOMINAL WALL RECONSTRUCTION IN CIRRHOTIC PATIENTS WITH ASCITES: INITIAL RESULTS OF A PROSPECTIVE STUDY

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Background: Umbilical and incisional hernia repair in cirrhotic patients with active ascites is associated with high risk of post-operative complications. Neither the best techniques of repair, nor the outcomes of these procedures have been reported widely. Use of mesh remains controversial. We performed complex abdominal wall reconstruction (CAWR) with biologic mesh placed in a sublay technique. The aim of our study was to analyze surgical outcomes of cirrhotic patients with active ascites undergoing this approach.

Methods: This was a prospective study from March 2016 to June 2020 of all CAWRs completed at a tertiary care institution. CAWRs were performed using the posterior component separation, neurovascular bundle-sparing open technique with biological mesh. Patients were divided into two groups: cirrhotic and non-cirrhotic. Patients with liver transplantation were considered non-cirrhotic. Demographics, intraoperative procedures, and wound complications were compared between the two groups. The risk of 90-day mortality was assessed using the Mayo Risk Calculator. Chi-square analysis was used for nominal variables and means were analyzed using Independent t-tests.

Results: Twenty out of 180 patients undergoing CAWR had cirrhosis with active ascites. 45% of cirrhotic patients presented with umbilical hernias while 55% of cirrhotic patients had incisional hernias. The mean MELD score was 14.3 ± 6.8 with 30% of cirrhotic patients requiring transjugular intrahepatic portosystemic shunt prior to surgery. 36.8% of cirrhotic patients had ascites leaking through their abdominal skin. 50% of cirrhotic patients required intraperitoneal drain placement during CAWR, which remained in place for a mean of 16.9 ± 8.6 days. Cirrhotic patients required a smaller mesh size (198.9 cm^2 vs. 470.2 cm^2 , $p = 0.001$) compared to non-cirrhotic patients. Only 40% of cirrhotic patients required lysis of adhesions compared to 69.4% of non-cirrhotics, $p = 0.01$. The estimated risk of 90-day mortality of our cirrhotic patients was 26.8% using the Mayo Risk Calculator. In our cohort, only 10% of our cirrhotic patients expired within 90 days. There was no significant difference in hospital length of stay, reoperations, rates of post-operative wound infection, wound necrosis or seroma between the two groups.

Conclusion: CAWR can be done safely in cirrhotic patients with complex abdominal wall hernias using biological mesh.