

**Safety and Feasibility of Robotic-Assisted Drainage of Symptomatic Pancreatic Pseudocysts:  
A Case-Series Analysis (with video)**

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**Abstract**

**Background:** The surgical treatment of pancreatic pseudocysts (PPs) in patients who fail non-operative management has evolved from aggressive open to a minimally invasive approach. The application of robotic surgery in this setting is scarcely reported. The aim of this study is to analyze the safety and feasibility of the robotic approach to pancreatic pseudocyst drainage.

**Methods:** A single centre retrospective review of consecutive patients undergoing robotic-assisted pancreatic pseudocyst surgeries in an academic tertiary institution was performed.

**Results:** There were 14 patients studied, of whom 10 underwent cystogastrostomy and 4 Roux-En-Y cystojejunostomy. Eight patients had gallstone pancreatitis and 3 patients alcoholic pancreatitis. The mean size of cyst was  $8.9 \pm 1$  cm and 57.1% located at the pancreatic body. The overall operative time of the procedure was  $135 \pm 34$  minutes. There were no open conversions. The overall success rate was 92.8%, while the primary success rate 85.7%. The major morbidity rate was 14.3% and there was no 30-day mortality. The mean post-operative hospital stay was  $7 \pm 3$  days with one recurrence of the pancreatic pseudocyst on follow-up requiring endoscopic drainage without further recurrence.

**Conclusions:** The robotic approach for the drainage of symptomatic pancreatic pseudocyst is safe and feasible and can be considered as a viable modality for operative intervention in well-selected patients

**Key words:** pancreatic fluid collections, pancreatic pseudocysts, robotic cystogastrostomy