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Intestinal Volvolus After Robotic Pancreaticoduodenectomy

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Context Intestinal volvulus is an uncommon complication either of open surgery either of mini-invasive surgery. Recent papers report few cases of small bowel obstruction after robotic-assisted surgery, but none due to an intestinal volvulus. In our experience including more than 90 robotic pancreatic resections we have had only one intestinal volvulus. We report the case of a small bowel obstruction because of a volvulus after robotic pancreatico-duodenectomy. **Case report** A 42-year-old man underwent robot-assisted pancreaticoduodenectomy on July 2011 for choledochus' adenocarcinoma. On September 2011 he was readmitted to us for an intestinal obstruction. Preoperative imaging included abdomen radiography and computed tomography. The latter showed a twisted small bowel loop with a strong lumen reduction. Robot-assisted pancreatico-duodenectomy was the only previous operation he had had. The patient underwent to a laparotomy, in order to easily diagnose the site of the obstruction. The entire small bowel was found to have rotated clockwise around the mesenteric vessels. Distal ileum, that included the obstruction, was resected. Final pathology disclosed only inflammation and granulation tissue. The postoperative course was uneventful and the patient was discharged on the fifteenth postoperative day. **Conclusion** The causes of small bowel rotation are not well known. An abnormally mobile bowel or other anatomic predispositions might have a role; another possible causes are post-operative adhesions that may create an axis around which the small bowel can rotate. Our patient have had only pancreaticoduodenectomy that, even if performed robotically, it is a very hard operation but at the repeat surgery the entire small bowel was found to have rotated clockwise around the mesenteric vessels without any adhesion. Robotic surgery needs the pneumoperitoneum induction and tilting table to a suitable position which are possible causes allowing a volvulus creation. In our experience, the posterior repair of peritoneum can avoid the onset of a volvulus and it can be as easily performed by robotic approach as in open surgery.