Laparoscopic anterior resection with Natural Orifice Specimen Extraction (NOSE) for rectal cancer

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Laparoscopic colorectal cancer resection requires another abdominal incision to extract the resected specimen. We describe a technique for laparoscopic resection of an upper rectal cancer in a 50-year-old man followed by transanal specimen delivery, hence avoiding the need for making any additional abdominal incisions for retrieval of the specimen. Pneumoperitoneum was created, followed by medial-to-lateral mobilization of the sigmoid colon and take down of the splenic flexure and division of the inferior mesenteric vessels laparoscopically. The rectum distal to the tumor was tightly bounded extra-luminally by gauze tape and transected after distal intraluminal irrigation through anal opening under direct vision by transanal rigid endoscopy. The proximal stump was extracted transanally via an opening in the rectal stump. The proximal colon was then transected extra-corporeally and the anvil of the circular stapler inserted before returning it to the pelvic cavity. The distal rectal stump was circularly sutured and the colorectal anastomosis was then completed intracorporeally. The patient with an annular rectal cancer 10cm from the anal verge underwent that procedure. Postoperative recovery was uneventful. He has resumed normal daily activities 1 week after surgery. Histopathology confirmed a moderately differentiated T3N0 upper rectal adenocarcinoma. In the effort to minimize surgical trauma and postoperative pain, natural orifice specimen extraction techniques have been attempted. This procedure may be applicable to benign tumors and early colorectal cancer and serves as an intermediate step between laparoscopic and natural orifice endoscopic surgery.

Biography
Muhammad S Niam is a General Surgeon, a Consultant in Digestive Surgery and also an Endoscopic and Laparoscopic Surgeon. He is a Lecturer and Medical Staff of Saiful Anwar General Hospital/Brawijaya University School of Medicine, Malang, Indonesia. He is a Chairman of Indonesian Society of General Surgery of Malang Region, National Faculty Member of Indonesian Society of Endo-laparoscopic Surgery, National Faculty Member of Indonesian Society of Coloproctology and Committee of Asian Society of Colorectal Surgery.

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