Objectives
Internal hernia after left colectomy is a very rare complication (around 1%) and suture of the mesocolic gap remains controversial [1]. Most of the internal hernias occur within 4 months after surgery. We report the case of a small bowel obstruction due to internal herniation immediately after ileostomy closure in a patient who underwent a low anterior resection with protective ileostomy for rectal cancer.

Methods
A 78 years old patient was initially treated with neo-adjuvant radio-chemotherapy followed by a low anterior rectum resection with protective loop ileostomy because of a locally advanced adenocarcinoma of the low rectum (UICC stage IIIb; pT3 pN1 M0). Oncologic treatment was completed with a adjuvant chemotherapy. Two months later the follow up assessment through abdominal CT scan and rigid rectoscopy showed a regular anastomosis with no cancer progression and we decided to close the ileostomy. The closure was uneventful but soon after surgery the patient complained of nausea and vomiting. Plain x-ray confirmed a bowel obstruction which was initially interpreted as consequence of the postoperative edema of the ileostomy closure. After 72 hours of clinical monitoring without improvement of the symptoms and with worsening of the inflammatory response in the blood analysis we decided to perform a diagnostic laparoscopy.

Results
The inspection of the intra-abdominal cavity showed an herniation of the small bowel under the mesocolic defect, which was not closed during the primary procedure. The hernia was completely reduced with no need of bowel resection and the mesocolic defect was closed with single stitches. Postoperative follow up was uneventful and the patient was discharged after one week. Retrospectively the CT-scan performed before the closure of the ileostomy showed already the herniation of the small bowel under the new left colon (figure 1), but due to the diversion through the ileostomy there was no bowel obstruction. By closing the ileostomy we believe that the internal hernia became clinically relevant with development of acute bowel obstruction.

Conclusions
Internal herniation is a rare, but serious complication after laparoscopic low anterior resection [2]. In our case the herniation became clinically manifest only after closing the protective ileostomy that determined distension of the colon and the obstruction of the herniated small bowel. Therefore we suggest to explicitly look for any signs of internal herniation in CT-scan of patients who are planned for closure of protective ileostomy after laparoscopic colectomy.

References:
2. SY Lee et al. Internal Hernia Following Laparoscopic Colorectal Surgery: A Rare but Fatal Complication. Hernia 21 (2), 299-304. 2016 Sep 01.