KLAIPĖDA UNIVERSITY HOSPITAL

Lithuanian Society of Coloproctologists

Lietuvos CHIRURGIJA Lithuanian Surgery

Studijų ir mokslo paramos fondas

INTERNATIONAL COLORECTAL FORUM 2018 (With Lithuanian–Korean sessions)

4 May 2018, Klaipėda, Lithuania

Renginio vieta:
Renginio vieta: Klaipėdos Dramos teatras, Teatro g. 2, Klaipėda (www.kldt.lt)

Registracija: 2018–05–04, 09.00–14.00 Klaipėdos Dramos teatro fojė

Konferencijos mokestis: Klaipėdos Universitetinės ligoninės ir Lietuvos Koloproktologų Draugijos nariams – nemokamai,
kitiems – 30 eurų, rezidentams ir studentams – 10 eurų

Organizing committee: Prof. Narimantas Evaldas Samalavičius, Prof. Raimundas Lunevičius, Assoc. Prof. Audrius Dulskas

Additional information: prof. Narimantas Evaldas Samalavičius, Chief of Surgery, Klaipėda University Hospital, Liepojos 41, Klaipėda, Lithuania
Mob. + 370 687 74748, e-mail: narimantas.samalavicius@gmail.com

Bus išduodami 6 valandų trukmės sertifikatai.

2018–05–04 10.00-17.00 Klaipeda Drama Theatre, Klaipeda, Lithuania

Morning session Moderators Ho Kyung Chun and Narimantas Evaldas Samalavicius	
10.00-10.05	**Opening speech** – prof. Vinsas Janušonis, Director of Klaipėda University Hospital, Klaipeda, Lithuania
10.05-10.20	**NET tumors of the rectum.** Seong Taek Oh, The Catholic University, Seoul, Korea
10.20-10.35	**Which one is a proper dissection plane of Denonvilliers fascia during TME?** Ji Yeon Kim, Chungnam National University, Korea
10.35-10.50	**Clinical trials for laparoscopic rectal cancer surgery** Seung-Yong Jeong, Seoul National University, Korea.
10-50-11.05	**Lessons learned from RCT about single-port versus multi-port laparoscopic surgery for colon cancer (SIMPLE trial).** Suk-Hwan Lee, Kyung Hee University, Korea
11.05-11.20	**Prognostic impact of tumor budding grade in stages I-II-III of colon cancer.** Yong Beom Cho, Sungkyunkwan University, Korea
11.20-11.35	**Update on anal fistula surgery.** Phil Caushaj, Hartford, Connecticut, USA
11.35-11.50	**Laparoscopic sigmoidectomy for diverticulitis: a plea for procedure standardization.** Pascal Gervaz (Geneva, Switzerland)
11.50-12.05	**Do all colonoscopically removed T1 polyps need oncologic colectomy?** Nikas Samuolis, Ukmerge General Hospital, Lithuania

12.05-12.30	**Coffee brake**
Lithuanian-Korean session I. Moderators Woo Yong Lee, Audrius Dulskas	
12.30-12.45	**Adult patients characteristics, management and outcomes from acute lower gastrointestinal bleeding.** Raimundas Lunevičius, Aintree University Hospital, Liverpool, UK
12.45-13.00	**Problems of the abdominal wall.** Kyu Joo Park, Seoul National University, Korea
13.00-13.15	**Bowel dysfunction following low anterior resection – how to get back on track?** Audrius Dulskas, National Cancer Institute, Vilnius, Lithuania
13.15-13.30	**Sessile serrated adenomas/polyps: current understanding of diagnosis, pathogenesis and clinical management.** Eun-Jung Lee, Daehang Hospital, Korea
13.30-13.45	**"To be or not to be" for suturing of the rectal wall after TEM?** Narimantas Evaldas Samalavičius, Klaipėda University Hospital, Lithuania
13.45-14.00	**Feasibility of hand assisted laparoscopic surgery for colorectal disease in the emergency.** Kyung Uk Jung, Sungkyunkwan University, Korea
14.00-15.00	**Lunch**
Lithuanian-Korean session II Moderators Soon Sup Chung, Raimundas Lunevicius	
15.00-15.15	**Strategies to achieve pCR in preoperatively radiated rectal cancer.** Suk-Hwan Lee, Kyung Hee University, Korea
15.15-15.30	**Buttock wound: the importance of grading system.** Raimundas Lunevičius, Aintree University Hospital, Liverpool, UK
15.30-15.45	**Bowel perforation from unusually ingested foreign bodies.** Guechun Lee, Sungkyunkwan University, Korea
15.45-16.00	**Stoma complications in colorectal surgery.** Dainius Šimčikas, Klaipėda University Hospital, Lithuania
16.00-16.15	**Large intra-rectal foreign body: a case report.** Hyun Su Bae, Sungkyunkwan University, Korea
16.15-16.30	**Colonoscopic perforations: incidence, treatment and and the role of anesthesia.** Olegas Deduchovas, Klaipėda University Hospital, Lithuania
16.30-16.45	**How to improve adenoma detection rate.** Eun-Jung Lee,Daehang Hospital, Korea
16.45-17.00	**Discussion, closing remarks.**

Neuroendocrine tumors of the rectum

Seong Taek Oh

Departmentof Surgery, Uijeongbu St. Mary's Hospital Catholic University of Korea

Neuroendocrine tumors (NETs) of the rectum were regarded as benign, when Oberndorfer originally described the entity in 1907. Later, he acknowledged that some NETs (or carcinoids, the term at that time) behave in a more aggressive manner, and a few of them even had the potential to metastasize with poor outcome. Their annual incidence in the United States is rising, primarily as a result of increased incidental detection. Many are discovered incidentally during routine surveillance endoscopies. The incidence of rectal NETs in African Americans and Asians is substantially higher than in Caucasians. Symptoms of rectal NETs include hematochezia, pain, and change in bowel habits. Most rectal NETs are small, submucosal in location, and associated with a very low malignant potential. Tumors larger than 2 cm or those invading the muscularis propria are associated with a significantly higher risk of metastatic spread. Recent improvements in the understanding of NETs have led to more-refined definitions of the clinicopathologic characteristics of these tumors.

In the novel World Health Organization (WHO) classification launched in 2010, all NETs of the gastrointestinal (GI) tract are malignant. In this classification, tumors of every part of the GI tract are graded uniformly according to proliferation index and mitotic frequency, whereas the TNM-classification (tumor, node, metastasis) is specific for each site. Around 10% of gastroenteropancreatic neuroendocrine tumors (GEP-NETs) occur in the rectum. The prognostic accuracy of the WHO 2010 classification has been sufficiently validated in the stomach and pancreas, but in the rest of the GI tract, including the rectum, its prognostic value is inadequately confirmed. What would be useful, if possible, would be to reliably stratify rectal NETs into categories based on their metastatic potential. The WHO 2010 had excellent prognostic significance; none of the G1-NETs (grade 1) metastasized, whereas G2-NETs were often disseminated, some of them at initial presentation. Metastatic NETs have a poor prognosis. Cell-cycle antigen cyclin A also correlated with prognosis, and G2-NETs with high cyclin A expression were all metastatic. These results support the validity of the WHO 2010 classification in rectal NETs. For patients with a rectal G1-NET, one follow-up endoscopy to exclude local recurrence might suffice. Intensive follow-up does not seem indicated, as metastatic potential is very low. As to G2-NETs, a thorough work-up is recommended, since most of these tumors disseminate eventually, some after several years, and a standard 5-year follow-up may not suffice. In selected cases, adjuvant therapy even in the absence of metastatic lesions might be beneficial, although this was not the target of the study. A multidisciplinary approach is recommended in diagnosing and managing rectal NETs. Because randomized prospective clinical trials are lacking, management decisions are commonly based on experience and expert recommendations.

Clinical trials for laparoscopic rectal cancer surgery

Seung-Yong Jeong

Colorectal Cancer Center, Seoul National University Cancer Hospital, Department of Surgery, Seoul National University College of Medicine, Korea

Minimal invasive surgery including laparoscopic surgery, robotic assisted laparoscopic surgery, and single incision laparoscopic surgery for various colorectal diseases has benefits compared with open surgery in terms of shorter length of stay, faster return of bowel function, decreased use of narcotics and lower rates of wound complications. However, the most critical issue of these techniques is uncertainty whether to apply to rectal cancer because surgical procedures in deep and narrow pelvis confined by bony structures with abiding by the surgical principles of a total mesorectal excision (TME) and autonomic nerve preservation which are prerequisites for functional and oncological safety.

To date, data from randomized studies evaluating use of laparoscopic surgery in the treatment of patients with rectal cancer are limited. In the UK Medical Research Council (MRC) trial, Conventional versus Laparoscopic-Assisted Surgery in Colorectal Cancer (CLASICC), 794 patients were diagnosed with rectal cancer. A 5-years follow-up of the CLASICC trial showed that lack of difference in local recurrence, DFS, or OS was maintained for patients with rectal cancer. However, in this trial, there were a 34% conversion rate with 59% morbidity during the first 30 days after laparoscopic surgery for rectal cancer and higher rate of positive circumferential resection margin in laparoscopic group.

In 2006, we started our own prospective randomized controlled trial of "Comparison of Open versus laparoscopic surgery for mid and low Rectal cancer After Neoadjuvant chemoradiotherapy (COREAN)". We had enrolled 340 patients who had cT3N0–2 mid or low rectal cancer without distant metastasis after preoperative chemoradiotherapy at three tertiary-referral hospitals (the National Cancer Center,

the Seoul National University Hospital, and the Seoul National University Bundang Hospital) and randomised 1:1 to receive either open surgery (n = 170) or laparoscopic surgery (n=170). The primary endpoint of this trial is 3-year disease-year survival. We reported short term outcomes of this trial in 2010. Two patients (1.2%) in the laparoscopic group were converted to open surgery. Estimated blood loss was less in the laparoscopic group than in the open group (median 217.5 mL [150.0–400.0] in the open group vs 200.0 mL [100.0–300.0] in the laparoscopic group, $p = 0.006$), although surgery time was longer in the laparoscopic group (mean 244.9 min [SD 75.4] vs 197.0 min [62.9], $p < 0.0001$). Involvement of the circumferential resection margin, macroscopic quality of the total mesorectal excision specimen, number of harvested lymph nodes, and perioperative morbidity did not differ between the two groups. The laparoscopic surgery group showed earlier recovery of bowel function than the open surgery group. The total amount of morphine used was less in the laparoscopic group than in the open group. Three months after proctectomy or ileostomy takedown, the laparoscopic group showed better physical functioning score than the open group, less, and fewer micturition, gastrointestinal, and defecation problems in repeated measures analysis of covariance, adjusted for baseline values. In 2014, we reported the long-term outcomes of this trial. A median follow-up was 46 months in open group (n = 170) and 48 months in laparoscopic group (n = 170, including 2 cases of open conversion). The number of events including recurrence, death or second primary cancer in the open and laparoscopic group was 49 and 41, respectively. The 3-year disease free survival was 72.5% (95% CI: 65.0–78.6) in the open group and 79.2% (95% CI: 72.3–84.6) in the laparoscopic group with the difference of –6.1% (95% CI: –15.9 to 2.4). The hazard ratio (HR) for disease-free survival (open vs laparoscopic surgery) was 0.82 (95% CI: 0.54–1.24). The 3-year overall survival was similar between the groups (90.4% in the open group, 91.7% in the laparoscopic group, respectively, $p = 0.45$). The 3-year local-recurrence rate was also similar (4.9% in the open group, 2.6% in the laparoscopic group, $p = 0.10$). QLQ-C30 and –C38 scale scores at 12, 24 months and 36 months showed no significant difference between the open and laparoscopic groups. We concluded that COREAN trial demonstrated that laparoscopic resection for locally advanced rectal cancer after preoperative chemoradiotherapy can provide equivalent long-term oncologic outcomes and quality of life to the open surgery, suggesting the laparoscopic approach can be justified for rectal cancer surgery.

Recently the long-term result of COLOR II trial, which analyzed 1 044 (699 in laparoscopic-surgery group, 345 in open-surgery group) patients with rectal cancer within 15 cm of the anal verge without distant metastasis from 30 hospital, was reported. At 3 years, the locoregional recurrence rate was 5.0% in the two groups (difference, 0 percentage points; 90% confidence interval [CI], –2.6 to 2.6). Disease-free survival rates were 74.8% in the laparoscopic-surgery group and 70.8% in the open-surgery group (difference, 4.0 percentage points; 95% CI, –1.9 to 9.9). Overall survival rates were 86.7% in the laparoscopic-surgery group and 83.6% in the open-surgery group (difference, 3.1 percentage points; 95% CI, –1.6 to 7.8). And the authors concluded that Laparoscopic surgery in patients with rectal cancer was associated with rates of locoregional recurrence and disease-free and overall survival similar to those for open surgery.

Two other trials, ACOSOG Z6051 and ALaCaRT, have reported pathologic outcomes. In these two trials the primary endpoint was a composite of CRM>1 mm, negative distal margin, and TME completeness. However, in the results of these trials, the criteria for non-inferiority of the laparoscopic approach were not met.

Recently emerged minimal invasive procedure, single incision laparoscopic surgery which is performed through a solitary small transabdominal incision has several advantages over conventional multi-ports laparoscopic surgery, including better cosmesis (scarless abdominal surgery performed through an umbilical incision), less incisional pain, and the ability to convert to standard multiport laparoscopic surgery if needed. However, to date, advantages and disadvantages of single port surgery have not been clearly verified. We are awaiting well designed large comparative studies.

Laparoscopic surgery using robot assisted system has several advantages over LS in terms of shorter learning curve, stable camera platform, 3D vision, better motion of instruments and better ergonomics for the surgeons. Most colorectal surgeons admit that robot assisted laparoscopic surgery would be helpful in rectal cancer surgery especially in male with narrow pelvis and high BMI. On-going multinational prospective ROLARR (Robotic versus Laparoscopic Resection for Rectal Cancer) trial which was designed for comparing the rate of intraoperative conversion to open surgery between laparoscopic (n = 234) and robotic (n = 237) rectal cancer surgery. The result of this trial was reported at the annual meeting of ASCRS (American Society for Colon and Rectal Surgeons) last year and observed conversion rate was lower following robotic surgery, but no statistically significant evidence of superiority compared to laparoscopic surgery (12.2% in laparoscopic and 8.1% in robotic surgery, 95% CI, –1.4%, 9.6%). On subgroup analysis the trial demonstrated possible benefit in males, low anterior resection and obese patients.

Currently laparoscopic surgery is a mainstream of minimal invasive surgery for rectal cancer. Robotics and single port surgery have not demonstrated enough evidences yet.

Learning Objectives

1. Understand and can summarize the results of randomized controlled trials comparing laparoscopic and open surgery for rectal cancer.
2. Recognize the benefits and limitations of laparoscopic surgery for rectal cancer.
3. Compare the advantages and disadvantages among laparoscopic, robot assisted and single incisional surgery for rectal cancer.
4. Understand and summarize the result of ROLARR trial.

References

1. Jayne DG, Guillou PJ, Thorpe H, et al. Randomized trial of laparoscopic-assisted resection of colorectal carcinoma: 3-year results of the UK MRC CLASICC Trial Group. J Clin Oncol 2007; 25: 3061–3068.

2. Colon Cancer Laparoscopic or Open Resection Study Group. Buunen M, Veldkamp R, Hop WC, et al. Survival after laparoscopic surgery versus open surgery for colon cancer: long-term outcome of a randomised clinical trial. Lancet Oncol 2009; 10: 44–52.

3. Kang SB, Park JW, Jeong SY, et al. Open versus laparoscopic surgery for mid or low rectal cancer after neoadjuvant chemoradiotherapy (COREAN trial): short-term outcomes of an open-label randomized controlled trial. Lancet Oncol 2010; 11: 637–645.

4. Jeong SY, Park JW, Nam BH, et al. Open versus laparoscopic surgery for mid-rectal or low-rectal cancer after neoadjuvant chemoradiotherapy (COREAN trial); survival outcomes of an open-lapbel, non-inferioty, randomized controlled trial. Lancet Oncol 2014; 15: 767–774.

5. Bonjer HJ, Deijen CL, Abis GA, et al. A randomized trial of laparoscopic versus open surgery for rectal cancer. N Engl J Med 2015; 372(14): 1324–1332.

6. Fleshman J, Branda M, Sargent DJ, et al. Effect of laparoscopic-assisted resection vs open resection of stage II or III rectal cancer on pathologic outcomes: the ACOSOG Z6051 randomized clinical trial. JAMA 2015; 314: 1346–1355.

7. Stevenson AR, Solomin MJ, Lumley JW, et al, Effect of laparoscopic-assisted resection vs open resection on pathological outcomes in rectal cancer: the ALaCaRT randomized trial. JAMA 2015; 314: 1356–1363.

Single port laparoscopic surgery in colon cancer: lessons from RCT

Suk-Hwan Lee,
on behalf of simple study group

Department of Surgery, Kyung Hee University Hospital at Gangdong, Seoul, South Korea

Single port surgery gained attention to reduce the surgical scar and complete complicated surgical procedure with small incision. Single port vs. multiport laparoscopic surgery for colon cancer: multicenter prospective randomized trial in Korea (SIMPLE trial) was started Aug. 2011 to compare the short-term outcomes of single port colon surgery compare with those of multiport surgery.

The patients who needed radical surgery for colon cancer were enrolled and randomized by web-based e-CRF just before the surgery. In this study, transverse and descending colon cancer, stage IV colon cancer and T4b cancer were excluded. Primary end point was 30-day postoperative complication and secondary end points were 3-years DFS & OS, QoL, satisfaction rate of given surgery. This trial was registered in ClinicalTrials.gov and number is NCT01203969.

We randomized 388 patients and assigned 194 patients in each group. 15 cases in SPLS, 14 cases in MPLS were dropped, so 179 cases in SPLS and 180 cases in MPLS were analyzed. There were no statistical differences in basic characteristics including age, sex, BMI, tumor locations, ASA score and history of previous abdominal surgery. The operation time was 175.6 minutes in SPLS and 164.3 minutes in MPLS but showed no differences. Open conversion was 3 cases (1.7%) in SPLS and 0 cases in MPLS, showed no difference. Total incision length was significantly short in SPLS (4.6 cm vs. 7.2 cm, $p = 0.000$) Postoperative recovery including first bowel movement, diet, postoperative pain score and length of hospital stay showed no differences. The postoperative complication was 15 cases (8.4%) in SPLS and 18 cases (10%) in MPLS, and showed no difference. Anastomosis leak was encountered in 2 cases in each group and showed no differences. No differences in pathologic outcomes including T and N stage, tumor size, number of harvested lymph node and proximal and distal resection margin were shown. Our trial showed short-term outcomes of SPLS for colon cancer was acceptable compared to MPLS. Single port laparoscopic surgery can be a safe and technically feasible surgical option for colon cancer.

Prognostic impact of tumor budding grade in stages 1–3 colon cancer

Yong Beom Cho

Department of Surgery, Samsung Medical Center, Sungkyunkwan University, Korea

Tumor budding is a histologic finding in which tumor cells detach from the invasive margin of the tumor and migrate into the stroma surrounding the tumor. Currently, tumor budding is defined as a single tumor cell or a cell cluster of up to four tumor cells at the invasive front of the primary tumor.

Tumor budding is associated with adverse histology and is a predictor of lymph node metastasis. However, it remains unclear whether tumor budding is predictive of a poor prognosis for colon cancer patients. Many studies have suggested that tumor budding is an independent poor prognostic factor because it is related to high tumor grade, infiltrating tumor border, lymphovascular invasion, and perineural invasion.

In this lecture, I will investigate the prognostic significance of tumor budding using propensity score-matched analysis for a large cohort of colon cancer patients.

Laparoscopic sigmoidectomy for diverticular disease: a plea for standardization of the procedure

Pascal Gervaz

Geneva University and Medical School, Geneva, Switzerland

Preoperative CT scan imaging of previous diverticulitis attacks is a prerequisite for an adequate resection. It is crucial to assess the topography of the disease, since proximal (i.e. descending colonic) diverticulitis is present in 15–20% of cases. Thus, ***the surgeon must obtain this anatomic information prior to surgery***. The main steps of the procedure are: 1) splenic flexure mobilization; 2) identification of the site of proximal division – proximal to the site of diverticulitis; 3) vascular division with preservation of the trunk of inferior mesenteric artery (IMA) and the left-colic artery (LCA); 4) identification of the distal side of the resection on the intra-peritoneal rectum distal to the reunion of the taeniae.

1. Mobilisation of the splenic flexure. This step is totally related to the length of resected colon which should be at least the whole sigmoid and, not rarely, the distal descending colon. In our experience, the mobilization of the splenic angle is necessary in almost all cases in order to do the anastomosis on the proximal rectum and to avoid any anastomotic tension.

2. Site of the proximal section. Current recommendation is to make the proximal part of the anastomosis in soft and compliant colon. There is yet no clear answer on the need to remove the site(s) of colon that was (were) previously affected by episode(s) of acute inflammation. Nevertheless, until proven otherwise, we think that all the affected colonic sites, as reported by computed tomography, should be removed to decrease the risk of recurrence on a residual site. The proximal resection should then include the distal part of the descending colon if this location were involved by acute diverticulitis. Knowing that in 35% of patients who have a second episode of diverticulitis, the recurrence will involve another segment of the left colon (84), it is essential to have a CT-scan for each episode of acute diverticulitis in order to have a complete knowledge of the site(s) where episode(s) of acute diverticulitis occurred.

3. Vascular division – Left colic artery. This part of the procedure is probably the most important one as a growing number of studies seems to point out that the risk of anastomotic insufficiency and quality of bowel function might be conditioned by vascular preservation. Our preferred approach is a "low tie" division of the IMA i.e. distal to left colic artery take-off.

4. Distal bowel resection. This is the only technical aspect of the procedure that is not a source of debate. The descending colon must be brought down to the pelvis in order to perform a colo-rectal anastomosis. A colo-sigmoid anastomosis is associated with an increased risk of recurrent attacks of diverticulitis. The upper (intra-peritoneal) rectum is always free of diverticulum, and provides a convenient zone for performing either an end-to-end, or a side–to-end anastomosis with a 28 or a 29 mm circular stapler.

Do all colonoscopically removed T1 polyps need oncologic colectomy?

Nikas Samuolis[1], Narimantas Evaldas Samalavičius[2, 3], Audrius Dulskas[4], Rytis Markelis[5], Raimundas Lunevičius[6], Ugnius Mickys[7], Ugnė Ringelevičiūtė[8]

[1]Department of Surgery, Ukmergė Hospital, Ukmerge, Lithuania; [2]Department of Surgery, Klaipėda University Hospital, Klaipėda, Lithuania; [3]Department of General and Abdominal Surgery and Oncology, National Cancer Institute, Clinic of Internal, Family Medicine and Oncology, Faculty of Medicine, Vilnius, Lithuania; [4]Department of General and Abdominal Surgery and Oncology,

National Cancer Institute, Vilnius, Lithuania; [5]Department of Surgery, Hospital of Oncology, Hospital of Lithuanian University of Health Sciences Kaunas Clinics, Kaunas, Lithuania; [6]General Surgery Department, Aintree University Hospital NHS Foundation Trust, University of Liverpool, Lower Lane, Liverpool, United Kingdom; [7]National Center of Pathology, Affiliate of Vilnius University Hospital Santaros Klinikos, Vilnius, Lithuania; [8]Faculty of Medicine, Vilnius University, Vilnius, Lithuania

Introduction. Endoscopically removed polyps with T1 cancer still carries a risk of lymph node metastasis. We have conducted retrospective study to evaluate indications for colectomy in T1 polyps and possible risk factors for lymph node metastasis.

Patients and methods. Between January 2004 and January 2017 46 patients who underwent colectomy after radical endoscopic removal of malignant polyps with T1 carcinoma were included. Resection was done based on at least one of unfavourable histological criteria. We collected and prospectively studied histopathologic features, short-term results and the benefit–risk balance. Complications were assessed by Clavien-Dindo classification.

Results. 46 patients (24 females; median age at surgery, 66 years (range 46–78)) were included in the present study. 29 patients (63.0%) had more than two unfavourable criteria in the polyp that justified colorectal resection. 35 patients (76%) had G2 cancer, 11 (24%) – G1. Five patients (10.9%) had lymph node metastases and one (2.2%) had residual adenocarcinoma. All five patients with lymph node metastasis had G2 cancer. Nine patients (19.6%) had residual adenoma left. Overall complications were identified in six (13.0%) patients. There were no grade III–IV complications or deaths. Oncologic benefit was significantly associated with polyp size ≥17 mm ($p = 0.006$), lymphovascular invasion ($p = 0.05$) and with budding ($p = 0.02$). Multivariate analysis showed no significance of these features.

Conclusions. Lymphovascular invasion, tumour budding and polyp size ≥17 mm were significant risk factors for lymph node metastasis in T1 colorectal cancer. An incomplete diagnostic report on a malignant polyp may lead to unnecessary aggressive treatment, also contributing to the incidence of pT0 colectomies for colon cancer.

Adult patients characteristics, management and outcomes from acute lower gastrointestinal bleeding: Liverpool, 2015

Raimundas Lunevičius, Jūratė Noreikaitė, Mohammed Elniel

Department of General Surgery, Aintree University Hospital NHS Foundation Trust, University of Liverpool, Lower Lane, Liverpool, UK

Objectives. To describe patient characteristics, acute lower gastrointestinal bleeding (LGIB) management and clinical outcomes at Aintree University Hospital; to compare them with nationwide UK audit results.

Design. Nationwide unselected prospective audit against 17 standards, September–October 2015 [1].

Setting. Aintree University Hospital NHS Foundation Trust, and other 142 acute hospitals receiving emergency admissions in four constituent countries of the UK provided data.

Subjects. Out of 78 potential cases identified over two months at Aintree, Liverpool, 52 were eligible for this audit. More than a half of them identified in the non-surgical wards of the hospital. Overall, collaborators from 143 hospitals identified 2,528 patients with acute LGIB.

Results. Most were elderly patients. 8% of them were on warfarin on the day of admission to Aintree. None of the patients met standard for reversal for non-clinically significant LGIB (1–3 mg IV Vitamin K). 6% of Aintree patients were on NSAIDs. Only 21% of our patients met standard for restrictive hemotransfusion threshold. 31% of patient met standard known as "The cause and site of clinically significant LGIB should be determined following the early use (within 24 hours) of colonoscopy or flexible sigmoidoscopy or the use of computed tomography angiography or digital subtraction angiography". No patients required surgical control of bleeding at Aintree. In essence, Aintree–specific results corresponded the UK results [2].

Conclusions. The patient characteristics, management and clinical outcomes of acute LGIB at Aintree University Hospital NHS Foundation Trust are similar to that reported in the UK. This audit shows the underperformance in conservative management of patients with acute LGIB both in Liverpool and the UK. The absolute majority of these patients require state-of-the-art conservative treatment and further endoscopic investigations [3–4]. Patients with LGIB should be managed in highly specialised units for gastrointestinal bleeding within gastroenterology departments.

References

1. Oakland K, Guy R, Uberoi R, Seeney F, Collins G, Grant-Casey J, Mortensen N, Murphy M, Jairath V; National Comparative Audit in Blood Transfusion Lower Gastrointestinal Bleeding Working Group. Study protocol: first nationwide comparative audit of acute lower gastrointestinal bleeding in the UK. BMJ Open 2016; 6(8): e011752. DOI: 10.1136/bmjopen-2016-011752.

2. Oakland K, Guy R, Uberoi R, Hogg R, Mortensen N, Murphy MF, Jairath V; UK Lower GI Bleeding Collaborative. Acute lower GI bleeding in the UK: patient characteristics, interventions and outcomes in the first nationwide audit. Gut 2017. PII: gutjnl-2016-313428. DOI: 10.1136/gutjnl-2016-313428. [Epub ahead of print]

3. Oakland K, Jairath V, Murphy MF. Advances in transfusion medicine: gastrointestinal bleeding. Transfus Med 2017. DOI: 10.1111/tme.12446. [Epub ahead of print]

4. Oakland K, Isherwood J, Lahiff C, Goldsmith P, Desborough M, Colman KS, Guy R, Uberoi R, Murphy MF, East JE, Hopewell S, Jairath V. Diagnostic and therapeutic treatment modalities for acute lower gastrointestinal bleeding: a systematic review. Endosc Int Open 2017; 5(10): E959–E973. DOI: 10.1055/s-0043-117958. [Epub 2017 Sep 29]

Bowel dysfunction following low anterior resection – how to get back on track?

Audrius Dulskas[1], Edgaras Smolskas[1], Narimantas Evaldas Samalavičius[2]

[1]National Cancer Institute, Vilnius, Lithuania; [2]Klaipėda University Hospital, Klaipėda, Lithuania

The aim of this presentation was to summarize treatment possibilities for low anterior resection syndrome (LARS) after surgical treatment of rectal cancer in the medical literature. Up to 80% of patients after low anterior resection, experience LARS. However, there is no standard treatment option currently available.

Methods. Embase, PubMed, and the Cochrane Library were searched using the terms anterior resection syndrome, low anterior resection, colorectal / rectal / rectum, surgery / operation, pelvic floor rehabilitation, biofeedback, transanal irrigation, sacral nerve stimulation, and tibial nerve stimulation. All English language articles presenting original patient data regarding treatment and outcome of LARS were included. We focused on the effects of different treatment modalities for LARS. The Jadad score was used to assess the methodological quality of trials. The quality scale ranges from 0 to 5 points, with a score ≤2 indicating a low quality report, and a score of ≥3 indicating a high quality report.

Results. Twenty-six of 160 studies met the inclusion criteria, of which ten were reporting sacral nerve stimulation, eight were designed to determine pelvic floor rehabilitation, four studies evaluated the effect of transanal irrigation, two – percutaneous tibial nerve stimulation, and the rest of the studies assessed probiotics and 5-HT3 receptor antagonists for LARS in patients who had undergone rectal resection. All except one study were poor quality reports according to the Jadad score.

Conclusions LARS treatment still carries difficulties because of a lack of well-conducted, randomized multicenter trials. Well performed randomized controlled trials are needed.

Sessile serrated adenomas / polyps: current understanding of diagnosis, pathogenesis and clinical management

Eun-Jung Lee

Daehang Hospital, Korea

Serrated lesions of the colorectum are characterized histologically by a serrated (or saw-toothed) appearance of the crypt epithelium. Thirty years ago, serrated lesions were called "hyperplastic polyps (HPs)" and were thought to have no malignant potential. Since then, a subset of serrated lesions has been established as the precursor of a group of Colorectal cancers (CRCs) that exhibit hypermethylation and arise primarily in the proximal colon, and which may account for one-third of all CRCs. Subtypes of serrated lesions (Table 1) have different molecular profiles (Fig. 1 and Fig. 2) and variable potential to develop into CRCs. They also have different endoscopic and clinical features (Table 2).

The serrated pathway (Fig. 2) describes the progression of a subset of serrated polyps, called sessile serrated adenomas / polyps (SSA/Ps), to CRCs. The serrated pathway represents a major challenge to CRC prevention efforts. Although screening and surveillance colonoscopy have been shown to significantly reduce CRC incidence and mortality, this effect appears to be limited mainly to cancers in the distal colon and rectum, the majority of which arise via the conventional adenoma-carcinoma sequence. Prevention of proximal CRCs has proven more difficult, and "interval cancers" following a negative or "clearing" colonoscopy continue to contribute importantly to the overall CRC burden. Some of these cancers arise via the serrated pathway, and there are many features that distinguish these groups of cancers and their precursors from conventional CRCs.

Table 1. Classification of Serrated lesions of the large intestine (4th edition of the WHO blue book, 2010)

HP
Microvesicular type (MVHP)
Goblet cell-rich type (GCHP)
Mucin poor type (MPHP)
SSA/P
Without cytological dysplasia
With cytological dysplasia
TSA
Without conventional dysplasia
With conventional dysplasia

All SSA/Ps should be accurately recognized and removed during colonoscopy. SSA/Ps, however, are susceptible to being easily overlooked due to their flat morphology and unremarkable color, providing little contrast with surrounding colonic mucosa. According to a recent study, in an average-risk screening cohort the detection of proximal serrated polyps was highly variable and endoscopist dependent. A significant proportion of proximal serrated polyps may be missed during colonoscopy. Tadepalli et al. suggested a definition of individual descriptors for SSA/Ps (rim of debris / bubbles, nodular surface, mucous cap, red / pink color, obscured blood vessels, dome-shaped elevation, alteration of fold contour, and superficial telangiectasias), and effective colonoscopy requires understanding of these typical appearances of SSA/Ps.

One recent study using high-resolution white-light endoscope (WLE) and narrow-band imaging (NBI) demonstrated that SSAs/Ps harbor specific endoscopic features compared with HPs. The presence of a cloud-like surface, indistinctive borders, irregular shape, and dark spots inside the crypts are all features that might aid endoscopists in differentiating premalignant SSAs/Ps from innocuous HPs during colonoscopy. Using a combination of these features, they were able to predict the histology of a subset of serrated polyps with NBI with a high diagnostic accuracy.

Due to the morphological similarity with HPs, a proportion of detected SSA/Ps seems to be left in situ when they are misinterpreted by a endoscopist or a pathologist as clinically irrelevant HPs. So an expert panel recommended that all serrated lesions proximal to the sigmoid colon and all serrated lesions in the rectosigmoid >5 mm in size should be completely removed.

Table 2. Clinical features of serrated lesions

	Shape	Mean Size	Prevalence	Location	Pre-cancerous
HP	Flat, sessile	Small, often ≤5 mm	Very common	Left colon	No
SSA/P	Flat, sessile	Larger than HP	Common	Right colon	Yes
TSA	Sessile, pedunculated	Larger than HP	Rare	Left colon	Yes

Table 3. 2012 recommendations for surveillance and screening intervals in individuals with baseline average risk (The United States Multi-Society Task Force, Lieberman DA. et al, 2012)

Findings at index procedure	Suggested surveillance interval	Strength of evidence
No polyps/small (< 10 mm) rectosigmoid hyperplastic	10 yr	Moderate
1-2 small (< 10 mm) tubular adenomas	5–10 yr	Moderate
3-10 tubular adenomas	3 yr	Moderate
> 10 adenomas	< 3 yr	Moderate
One tubular adenoma ≥ 10 mm	3 yr	High
One villous adenoma	3 yr	Moderate
Adenoma with high grade dysplasia (HGD)	3 yr	Moderate
Serrated lesions		
Sessile serrated polyp (SSP) < 10 mm with no dysplasia	5 yr	Low
SSP ≥ 10 mm OR with dysplasia OR serrated adenoma	3 yr	Low
Serrated polyposis syndrome	1 yr	Moderate

Whereas nondysplastic SSA/Ps have a relatively homogeneous appearance, progression to more advanced lesions with dysplasia (SSA/P-D) is associated with accumulation of aberrant DNA methylation and additional lesion changes resembling that of a conventional adenoma. The identification of an endoscopically apparent transition point between two differing surface patterns within a lesion should alert the endoscopist to an SSA/P harbouring dysplasia. The dysplastic component is usually a small (1–5 mm) centrally or peripherally located nodule, and occasionally minimally elevated or depressed area within the lesion. Examination of the surface pit pattern with WLE and NBI often reveals two distinct patterns corresponding to the different histology, with the dysplastic component exhibiting a type III (tubular or roundish pits) or type IV (branched or gyrus-like pits) pattern. With NBI, the area of dysplasia is darker due to more abundant and thicker surface capillaries in keeping with a NICE (NBI International Colorectal Endoscopic classification) 2 vascular

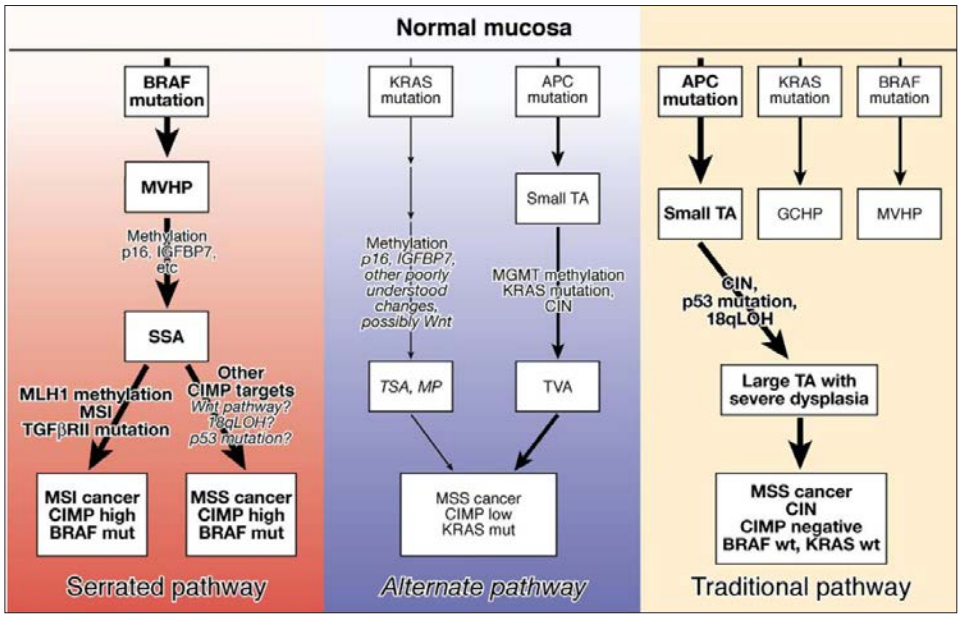

Fig. 1. Model of colorectal tumorigenesis (Leggett & Whitehall, 2010)

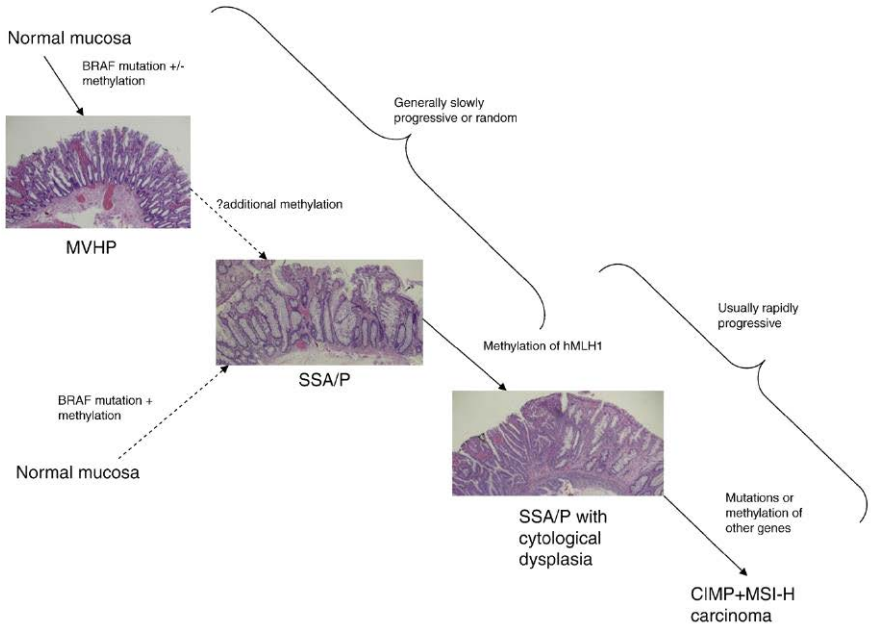

Fig. 2. Representation of the serrated pathway to MSI-H carcinoma. This sequential pathway involves slow and rapid steps. The origin of SSA/P remains debatable. It is possible that SSA/P arises directly from normal mucosa or SSA/P might develop from a preexisting MVHP; hence, the arrows for these steps are dotted (Snover DC, 2011).

pattern, compared with the relatively hypovascular background pattern of the nondysplastic SSA/P. Once dysplasia develops, transformation to invasive cancer can be rapid and may occur even when lesions are small. Burgess et al. reported that large (≥20 mm) SSA/Ps may more frequently harbour dysplasia, and was present in 32.4% of all such lesions referred for endoscopic mucosal resection (EMR) in a prospective multicenter study of large laterally spreading lesions. They revealed through multivariable analysis that SSA/P-D were significantly associated with increasing age, increasing lesion size, an "adenomatous" pit pattern (Kudo III, IV or V) and any 0-Is component within an SSA/P.

The prevalence of proximal colon serrated polyps in average-risk patients undergoing screening colonoscopy is higher than previously reported. Kahi et al. reported the prevalence and extrapolated detection rate of proximal serrated polyps at screening colonoscopy. Mean (± standard deviation) detection rates for adenomas and proximal serrated polyps were 38%±7.8% (range 17%–47%) and 13%±4.8% (1%–18%), respectively. There was a significant correlation between detection rates for adenomas and proximal serrated polyps for men (R = 0.71; P = .003) and women (R = 0.73; P = .002). Adenoma detection rates of 25% for men and 15% for women both corresponded to a detection rate of 4.5% for proximal serrated polyps. The prevalence of proximal serrated polyps found by the highest-level detector was 18%. They concluded that an extrapolated proximal serrated polyp detection rate of 5% is suggested for average-risk men and women.

SSA/Ps are associated with synchronous and metachronous advanced neoplasia in the colon. Recently, Gao et al. reported a systematic review and meta-analysis for serrated polyps and they showed that individuals with proximal and large serrated polyps had the highest risk of synchronous advanced neoplasia. Schreiner et al. reported that detection of proximal nondysplastic serrated polyps in a baseline colonoscopy is associated with an increased risk for interval neoplasia during surveillance. SSA/Ps are also associated with increased risk for CRC. Danish nationwide population-based, case-control study showed that the 10-year risk for CRC was 4.4% for patients with SSA/P with dysplasia, 4.5% for patients with TSAs, and 2.3% for patients with conventional adenomas.

The very flat shape of many SSA/Ps, combined with the indiscrete borders of these lesions frequently cause incomplete resection. Incomplete resection might contribute to the development of interval colon cancers. Efforts are needed to ensure complete resection, especially of larger lesions. Resection after submucosal injection, indigo carmine dye spraying, and image enhanced endoscopy such as NBI are helpful to complete resection of SSA/Ps.

Recently, the United States Multi-Society Task Force on Colorectal Cancer and European Society of Gastrointestinal Endoscopy updated their colonoscopy surveillance guidelines. They recommend that patients with serrated polyps <10 mm in size with no dysplasia should be classified as low-risk and should have their next follow-up colonoscopy in 5 years. They suggest that patients with large serrated polyps (≥10 mm) or those with dysplasia should be classified as high-risk and should have their next follow-up colonoscopy in 3 years (Table 3) Whereas, an expert panel including Rex et al. established relatively aggressive recommendations for post-polypectomy surveillance of serrated lesions following several rationales (a close relationship between interval CRCs and SSA/Ps, a greater variability in detection of SSA/Ps in the proximal colon, and high-risk of incomplete resection). They recommended shorter follow-ups (1–3 years) for large SSA/Ps or SSA/Ps with cytologic dysplasia.

SSA/Ps are morphologically subtle with indistinct borders, are difficult to detect endoscopically, are more prevalent than previously thought, are associated with synchronous and metachronous advanced neoplasia and have a higher risk of incomplete resection. In conclusion, SSA/Ps are important precursors of CRCs and are especially implicated in the development of interval CRCs. Therefore, high-quality colonoscopy is required for the detection and resection of SSA/Ps.

References

1. Baxter NN, Warren JL, Barrett MJ, Stukel TA, Doria-Rose VP. Association between colonoscopy and colorectal cancer mortality in a US cohort according to site of cancer and colonoscopist specialty. J Clin Oncol 2012; 30: 2664–2669.

2. Rex DK, Ahnen DJ, Baron JA, Batts KP, Burke CA, Burt RW, et al. Serrated lesions of the colorectum: review and recommendations from an expert panel. Am J Gastroenterol 2012; 107: 1315–1329.

3. Leggett B, Whitehall V. Role of the serrated pathway in colorectal cancer pathogenesis. Gastroenterology 2010; 138: 2088–3100.

4. Snover DC. Update on the serrated pathway to colorectal carcinoma. Hum Pathol 2011; 42: 1–10.

5. Tadepalli US, Feihel D, Miller KM, Itzkowitz SH, Freedman JS, Kornacki S, et al. A morphologic analysis of sessile serrated polyps observed during routine colonoscopy (with video). Gastrointest Endosc 2011; 74: 1360–1368.

6. Hazewinkel Y, López-Cerón M, East JE, Rastogi A, Pellisé M, Nakajima T, et al. Endoscopic features of sessile serrated adenomas: validation by international experts using high-resolution white-light endoscopy and narrow-band imaging. Gastrointest Endosc 2013; 77: 916–924.

7. Kimura T, Yamamoto E, Yamano HO, Suzuki H, Kamimae S, Nojima M, et al. A novel pit pattern identifies the precursor of colorectal cancer derived from sessile serrated adenoma. Am J Gastroenterol 2012; 107: 460–469.

8. Nanda KS, Tutticci N, Burgess N, Sonson R, McLeod D, Bourke MJ. Caught in the act: endoscopic characterization of sessile serrated adenomas with dysplasia. Gastrointest Endosc 2014; 79(5): 864–870.

9. Lee EJ, Kim MJ, Suh JP, Lee SH. Serrated carcinoma arising from a sessile serrated adenoma. Endoscopy 2013; 45 Suppl 2 UCTN: E110–111.

10. Burgess NG, Pellise M, Nanda KS, Hourigan LF, Zanati SA, Brown GJ, et al. Clinical and endoscopic predictors of cytological dysplasia or cancer in a prospective multicentre study of large sessile serrated adenomas / polyps. Gut 2016; 65: 437–446.

11. Ma MX, Bourke MJ. Sessile Serrated Adenomas: How to Detect, Characterize and Resect. Gut Liver 2017. DOI: 10.5009/gnl16523. [Epub ahead of print] Review.

12. Kahi CJ, Li X, Eckert GJ, Rex DK. High colonoscopic prevalence of proximal colon serrated polyps in average-risk men and women. Gastrointest Endosc 2012; 75: 515–520.

13. Schreiner MA, Weiss DG, Lieberman DA. Proximal and large hyperplastic and nondysplastic serrated polyps detected by colonoscopy are associated with neoplasia. Gastroenterology 2010; 139: 1497–1502.

14. Gao Q, Tsoi KK, Hirai HW, Wong MC, Chan FK, Wu JC, et al. Serrated polyps and the risk of synchronous colorectal advanced neoplasia: a systematic review and meta-analysis. Am J Gastroenterol 2015; 110: 501–509.

15. Pohl H, Srivastava A, Bensen SP, Anderson P, Rothstein RI, Gordon SR, et al. Incomplete polyp resection during colonoscopy-results of the complete adenoma resection (CARE) study. Gastroenterology 2013; 144: 74–80.

16. Lieberman DA, Rex DK, Winawer SJ, Giardiello FM, Johnson DA, Levin TR; United States Multi-Society Task Force on Colorectal Cancer. Guidelines for colonoscopy surveillance after screening and polypectomy: a consensus update by the US Multi-Society Task Force on Colorectal Cancer. Gastroenterology 2012; 143: 844–857.

17. Hassan C, Quintero E, Dumonceau JM, Regula J, Brandão C, Chaussade S, et al. Post-polypectomy colonoscopy surveillance: European Society of Gastrointestinal Endoscopy (ESGE) Guideline. Endoscopy 2013; 45: 842–851.

18. Bonnington SN, Rutter MD. Surveillance of colonic polyps: Are we getting it right? World J Gastroenterol 2016; 22: 1925–1934.

"To be or not to be" for suturing of the rectal wall defect after TEM/TAMIS?

Narimantas Evaldas Samalavičius[1], Audrius Dulskas[2], Aivaras Atkočiūnas[3]

[1]Klaipėda University Hospital, Klaipėda, Lithuania; [2]National Cancer Institute, Vilnius, Lithuania; [3]Medical Faculty of Vilnius University, Vilnius, Lithuania

The aim of this presentation was to review current data in the literature regarding management of the rectal wall defect after transanal endoscopic excision of rectal tumors and present preliminary results of our prospective study evaluating the fate of rectal wall suture during the early period after TEM.

Up to April 2018, a total of 5 original articles and 1 systematic review aiming to answer the question to suture or not to suture rectal wall defect after TEM/TAMIS were identified and are discussed in details. Since May 2017, all patients undergoing TEM for rectal neoplasms at the National Cancer Institute (Vilnius, Lithuania) were invited for a follow-up outpatient visit 7 to 10 days after TEM, clinical data were recorded and digital rectal examination was performed. A total of 50 patients are planned to be enrolled into this study before May 1st, 2019. Up to date, a total of 22 patients have been enrolled in this study, 15 were women and 7 men, age range 52–81, on an average 67 years. 20 were operated for rectal adenoma or *carcinoma in situ,* 2 – for T1 rectal cancer.

Current published literature data does not clearly support either closure if the rectal wall after TEM/TAMIS or leaving the defect open. In our study, 7 to 10 days after TEM sutures were intact in 14 (63,6%) out of 22 patients, but in the rest 8 with recorded suture dehiscence, it did not have any clinical manifestation, was not related with longer postoperative stay or incidence of postoperative complications.

Conclusions. Leaving open or closing the rectal wall defect after TEM/TAMIS – both alternatives seem to be safe and adequate, though more randomized controlled data are needed. Our study suggests that in roughly 1/3 of the patients rectal wall defect after TEM will undergo asymptomatic dehiscence in early postoperative period, and will not transfer to clinically significant manifestation.

Feasibility of hand-assisted laparoscopic surgery for colorectal disease in the emergency

Kyung Uk Jung, Hyun Su Bae, Guechun Lee, Hyung Ook Kim, Hungdai Kim, Ho-Kyung Chun

Sungkyunkwan University, Korea

Objectives. Laparoscopy technique is already accepted as the standard alternative for the open approach in the management of colorectal disease. However, safety and efficacy of laparoscopic approach for emergency colorectal surgery have not been established yet. We tried to evaluate safety and feasibility of hand-assisted laparoscopic (HAL) colectomy in the emergency setting by comparison with open colectomy.

Methods. This is a retrospective comparative study consecutive emergency colectomy cases which were treated with hand-assisted laparoscopy or open approach.

Results. From March 2015 to December 2017, 48 patients underwent emergency colorectal resection for both benign and malignant disease. Among them, 14 were treated with an open approach and 34 were treated with HAL technique. Demographics including sex, age, body mass index and ASA score were not statistically different between two groups. Operation time and estimated blood loss were similar in both groups. Complication rate (42.8% in the open group and 38.2% in HAL group) were not statistically different in both groups.

Conclusion. For the experienced surgeon, HAL can be a reasonable option for emergency colorectal surgery.

How to achieve more pCR in patients with locally advanced rectal cancer receiving CCRT

Suk-Hwan Lee

Department of Surgery Kyung Hee University Hospital at Gangdong, Kyung Hee University School of Medicine, Seoul, S. Korea

Current standard care for locally advanced rectal cancer (LARC) patients included preoperative chemoradiation therapy followed by total mesorectal excision and postoperative adjuvant chemotherapy. Subset of these patients achieved pathologic complete response (pCR) and these patients showed improved disease free and overall survival compared with non-pCR patients. Many efforts are being made to achieve more pCR with preoperative chemoradiation therapy: 1) time interval between completion of preoperative chemoradiation therapy and surgery, 2) adding various cytotoxic or molecular target agent with radiation therapy, 3) upfront chemotherapy or induction chemotherapy followed by preoperative radiation therapy and / or adding consolidation chemotherapy during the waiting period, 4) increasing radiation dose by means of endocavitary radiation. Each approach has limitations and the level of evidences is not solid enough to incorporate into daily clinical practices.

1. Time interval has been prolonged from 4–6 weeks to 6–8 weeks based on clinical trials to achieve more pCR. Recently, studies suggested even longer waiting period upto 12 weeks or more. Waiting period could achieve pCR even in short course radiation therapy. However, still concerns about tumor cell repopulation during the prolonged period of waiting precluded general consensus on waiting interval.
2. To achieve more pCR with preoperative chemoradiation therapy, various cytotoxic and molecular target agents are tried. Oxlaiplatin did not show increasing pCR in most of the trials but German trial showed superiority in terms of achieving pCR.
3. Although preoperative chemoradiation therapy showed improved local control, it did not showed improved disease free or overall survival of LARC patients. To improve and achieve survival benefit, upfront chemotherapies such as induction chemotherapy, consolidation chemotherapy and total neoadjuvant therapy are introduced and actively tested in the ongoing trial. Upfront chemotherapy showed pCR rate up to 45%.
4. Traditional radiation dose for LARC is 5,040 cGy or 2,500 cGy. Recent trial conducted in Denmark proposed increasing radiation dose upto 70 Gy achieved clinical CR(cCR) in 40 out of 51 patients (78.4%).

Treatment paradigms are slowly shifting from current standard care to improve local control, survival of patients and possible avoidance of surgery.

Buttock wound: the importance of grading system

Raimundas Lunevičius[1], Narimantas Evaldas Samalavičius[2]

[1]Department of General Surgery, Cheshire and Merseyside Major Trauma Centre, Aintree University Hospital NHS Foundation Trust, University of Liverpool, Lower Lane, Liverpool , UK; [2]Department of Surgery, Klaipėda University Hospital, Klaipėda, Lithuania

Introduction. Penetrating injuries to the buttock are classified according to the mechanism of injury, functional significance of injured structures (minor versus major), type of injury (major vessel, sciatic nerve, bony pelvis, etc.), penetration zone (upper versus lower), penetration aspect (medial versus lateral), environmental conditions (civilian versus battlefield / military), and severity (grading in line with Abbreviated Injury Scale). The importance of grading of injury to the buttock is underestimated.

Objective. To reflect on a recently published paper [1]; to overview the newest Update of Abbreviated Injury Scale 2008 on injuries to the buttock [2–4].

Results. Authors [1] reported a case with the valuable educational reminder: penetrating injury to the buttock can lead to hypovolemic shock and sudden exsanguination from a buttock vessel (or vessels). The principal lesson is correctly phrased – "Buttock wounds: Beware what lies beneath". This case report could initiate further discussions on a few themes. Examples would include identification of a patient with moderate and major trauma, organization, structure and operational model of a Major Trauma Centre, trauma care standards, guidelines, and protocols. In addition, it is necessary to emphasize the importance of one more thing, for it may help to prevent life-threatening bleeding from a false aneurysm of a major artery of the buttock in the future. It is the Abbreviated Injury Scale (AIS) – an anatomically based, consensus-derived system conceived more than four decades ago to describe the severity of injuries throughout the body [2].

Although there is a superb correlation between AIS severity and survival, mortality is not the only dimension being considered in assigning the severity value. The newest version of AIS – AIS 2005© Update 2008 – points out at 11 dimensions of the severity of injury such as a threat to life, hospitalization and need for intensive care, treatment cost, complexity and length, temporary and permanent disability, etc. [3]. Specifically, AIS 2005© Update 2008 indicates that penetrating injury to the soft tissues of the buttock has to be ranked as grade 3 if a wound to the buttock is associated with significant blood loss, >20% by volume (code 816013.3) [3]. AIS 1998 attributed, too, a penetrating injury to the buttock with significant blood loss, >20% by volume, to grade 3 (code 816006.3).

Thus, the authors described a serious, i.e. potentially dangerous, grade 3 penetrating injury to the right buttock putting a patient in stage III circulatory shock on admission. In all probability, a simplified application of AIS code in Accident and Emergency Department or Trauma Ward would have been alerted the personal of a Major Trauma Centre to consider an urgent digital subtraction angiogram with the view of embolization of a damaged artery which was compressed by a pelvic binder and a bundle of gauze at the time of a trauma CT-scan on the day of presentation of a patient to a hospital [4].

Conclusion: Buttock wounds: beware what lies beneath and bear in mind the AIS severity codes and its ranking from 1 to 6.

References

1. Clark S, Westley S, Coupland A, Hamady M, Davies AH. Buttock wounds: beware what lies beneath. BMJ Case Rep 2017; PII: bcr-2017-220425. DOI: 10.1136/bcr-2017-220425.

2. Rating the severity of tissue damage. I. The Abbreviated Injury scale. JAMA 1971; 215: 277–280.

3. Abbreviated Injury Scale 2005© Update 2008. Editors: Gennarelli TA, Wodzin E. 2008. Association for the Advancement of Automotive Medicine, Barrington, IL, USA.

4. Lunevicius R, Lewis D, Ward RG, Chang A, Samalavicius NE, Schulte KM. Penetrating injury to the buttock: an update. Tech Coloproctol 2014; 18: 981–992.

Bowel perforation from unusually ingested foreign bodies

Guechun Lee, Hyun Su Bae, Kyung Uk Jung, Hyung Ook Kim, Hungdai Kim, Ho-Kyung Chun

Sungkyunkwan University, Korea

Objectives. To report of operative cases with bowel perforation caused by foreign body ingestion.

Methods. These are case series of three patients with bowel perforation caused by ingested foreign bodies.

Results. We recently treated three adult patients who had bowel perforation caused by foreign bodies, which are seemed to be ingested obliviously. The first case was a 60 year-old woman with jejunal mass and perforation due to jujube seed. The second case was a 63-year-old woman with ileal perforation due to a toothpick. The third case was a 61-year-old

man with a mass like lesion on transverse colon caused by toothpick which was revealed in pathologic report.

Conclusion. Bowel perforation from ingested foreign bodies occurred unusually but exist. Surgeons should remain alert to the possibility of foreign materials in acute bowel perforation without signs of cancer, ischemia, or inflammatory bowel disease.

Stoma complications in colorectal surgery

Dainius Šimčikas

Klaipėda University Hospital, Klaipėda, Lithuania

Ileostomy or colostomy creation is a daily practice in colorectal surgery. The incidence of stomal complications remains high, reaching up to 80 percent. Necrosis, bleeding, retraction, stenosis, prolapse, mucocutaneous separation, parastomal hernia, abscess, ulceration, dermatitis is just the part of broad list of possible stoma-related problems.

Partially modifiable or not modifiable risk factors of complications are well known and include comorbid illnesses (obesity, diabetes), underlying pathology (cancer, diverticulitis, obstruction, peritonitis), anatomical issues (obesity, short mesentery). However proper stoma site selection, surgical technique of stoma formation, postoperative care and patient education are the factors that actually can be modified. The construction of a stoma is an essential step, requiring difficult decision-making, especially in emergency surgery.

The knowledge of possible complications and technical solutions during the stoma formation may allow the surgeon to prevent at least some of stoma-related problems.

Large intra-rectal foreign body: a case report

Hyun Su Bae, Guechun Lee, Kyung Uk Jung, Hyung Ook Kim, Hungdai Kim, Ho-Kyung Chun

Sungkyunkwan University, Korea

Objectives. To report the cases of the retained foreign body in the rectum, which were treated with different maneuver each other.

Methods. This is a case report of two patients who visited the ER to remove the foreign body in the rectum.

Results. *Case 1*. An 18-year-old male presented to the emergency department, complaining inability to remove cylindrical plastic bottle in the rectum after 8 hours of initial insertion. On physical examination, the end of the foreign object was touched in the rectal examination. He had no abdominal pain or anal bleeding. Considering the size and shape, endoscopic removal was not possible. Under spinal anesthesia, transanal manual removal was attempted in Jack-knife position. The foreign body was removed without complications.

Case 2. A 32-year-old male presented to the emergency department, complaining inability to remove plastic spray cap in the rectum after 1 day of initial insertion. The patient visited the local clinic and attempted to remove it with an endoscope, but failed. Under general anesthesia, the laparoscopic examination was done. Due to the ischemic change of colon, segmental resection and anastomosis was done. Laparoscopy was converted to mini-laparotomy due to proximal bowel dilatation.

Conclusion. The management of retained foreign body requires a sophisticated approach based on accurate information and thorough evaluation. The size, shape, and nature of the foreign object should be known before any attempt to remove. An appropriate method in various interventions should be chosen to least the injury to the rectum and anus.

Colonoscopic perforations: incidence, treatment and the role of anesthesia

Olegas Deduchovas

Klaipėda University Hospital, Klaipėda, Lithuania

Colonoscopy is a commonly performed procedure for the diagnosing of colorectal diseases. One of the most serious complications of colonoscopy is endoscopic perforation of the colon. Colonic perforation (CP) during diagnostic colonoscopy may result from mechanical forces against the bowel wall or barotrauma. In the large international studies of diagnostic colonoscopy, CP was reported in 0.01%–0.3% of cases [1]. Anesthesia was discussed as one of the risk factors for CP. However, in several large studies anesthesia was associated with higher rate of CP, whereas the same correlation was not found in other metanalyses [2, 3]. Anesthesia for the patients undergoing colonoscopy in Klaipėda University Hospital was started in the January 2015. We aimed to investigate the effects of the deep sedation with propofol on CP during diagnostic colonoscopy in Klaipėda University hospital and to compare the CP rate with the era before anesthesia. Data of patients underwent screening colonoscopy and complicated

with CP in Klaipėda University Hospital were retrieved for a period of 6 years (Feb 2012 to Jan 2017) from the electronic patient records of the hospital. ln this study we have not found the significant difference between CP rate before and after anesthesia era. Therefore, we evaluated anesthesia in our hospital as safe for diagnostic colonoscopy patients.

References

1. Reumkens A, et al. Post-Colonoscopy Complications: A Systematic Review, Time Trends, and Meta-Analysis of Population-Based Studies. Am J Gastroenterol 2016; 111(8): 1092–1101.

2. Forsberg A, et al. A register-based study: adverse events in colonoscopies performed in Sweden 2001–2013. Scand J Gastroenterol 2017; 52(9): 1042–1047.

3. Wernli KJ, et al. Risks Associated With Anesthesia Services During Colonoscopy, Gastroenterology 2016; 150(4): 888–894.

How to improve adenoma detection rate

Eun-Jung Lee

Department of Surgery, Daehang Hospital, Seoul, Korea

The adenoma detection rate (ADR) is the proportion of screening colonoscopies performed by a physician that detect at least one histologically confirmed colorectal adenoma or adenocarcinoma [1, 2]. Colonoscopy can reduce the risk of death from colorectal cancer through detection of tumors at an earlier, more treatable stage and through removal of precancerous adenomas. Conversely, failure to detect adenomas is associated with the risks of interval colorectal cancer, advanced-stage interval cancer, and fatal interval cancer [3]. In a large community-based U.S. population across multiple medical centers, each 1.0% increase in the ADR was associated with a 3.0% decrease in the risk of cancer [3]. In Polish study, the risk of interval cancer was significantly higher among subjects who underwent colonoscopies that were performed by endoscopists with an ADR of less than 20% than among subjects examined by endoscopists with a detection rate of 20% or more [4]. These findings support the validity of the ADR as a quality measure of physicians' performance of colonoscopy in community practice [5]. The ASGE/ACG and ESGE recommend that individual colonoscopists should identify one or more adenomas in at least 25% for male / female population aged ≥50 years undergoing screening colonoscopy [1, 2]. According to ASGE/ACG recommendation, ADR should be at least 30% for men and 20% for women [1].

However, ADRs vary widely among colonoscopists in both academic and community settings. This has prompted extensive efforts to identify factors and interventions that improve ADRs. Potentially modifiable factors that may influence ADR can be patient related (e.g., bowel preparation), endoscopist related (e.g., withdrawal time, quality of mucosal inspection, additional observers), or procedure related (e.g., water infusion, additional examination of right colon, change in position, antispasmodics, colonoscopic equipment, and accessories) [6].

References

1. Rex DK, Schoenfeld PS, Cohen J, et al. Quality indicators for colonoscopy. Gastrointest Endosc 2015; 81: 31–53.

2. Kaminski MF, Thomas-Gibson S, Bugajski M, et al. Performance measures for lower gastrointestinal endoscopy: a European Society of Gastrointestinal Endoscopy (ESGE) Quality Improvement Initiative. Endoscopy 2017; 49: 378–397.

3. Corley DA, Jensen CD, Marks AR, et al. Adenoma detection rate and risk of colorectal cancer and death. N Engl J Med 2014; 370: 1298–1306.

4. Kaminski MF, Regula J, Kraszewska E, et al. Quality indicators for colonoscopy and the risk of interval cancer. N Engl J Med 2010; 362: 1795–1803.

5. Hewett DG, Kahi CJ, Rex DK. Efficacy and effectiveness of colonoscopy: how do we bridge the gap? Gastrointest Endosc Clin N Am 2010; 20: 673–684.

6. Chaptini L, Laine L. Can I improve my adenoma detection rate? J Clin Gastroenterol 2015; 49: 270–281.