1 Colorectal surgery

12 Risk of local recurrence after complete mesocolic excision for right-sided colon cancer: post-hoc sensitivity analysis of a population-based study

***C.A. Bertelsen*[1,2], *A.U. Neuenschwander*[1], *J. Kleif*[1,2]** *[1]Nordsjællands Hospital, Department of Surgery, Hillerød, Denmark, [2]University of Copenhagen, Department od Clinical Medicine, Copenhagen, Denmark*

Background: Complete mesocolic excision (CME) has a causal treatment effect on the risk of recurrence, but it is still not clear whether this is caused solely by a risk reduction of local recurrence. We aimed to estimate the treatment effect of CME on local recurrence.
Results: A total of 807 patients were included, of whom 186 underwent CME and 621 were in the control group. The 5.2-year cumulative incidence of a solely local recurrence was 3.7% (95% CI: 0.5–6.1) after CME compared with 7.0% (5.0–8.9) in the control group, and the absolute risk reduction of CME was 3.7% (2.5–7.1; p=0.035). The absolute risk reduction of CME on local and distant recurrence diagnosed within 180 days of first recurrence diagnosed was 3.4% (1.3–5.6, p=0.0019) and on solely distant recurrence 3.1% (0.0–6.2, p=0.052). The absolute risk reduction of CME on local recurrence with or without distant recurrence diagnosed within 180 days was 7.1% (3.2–10.1; p=0.00038) and on distant recurrence with or without local recurrence 6.1% (2.2–10.1; p=0.0024).

15 Needle aspiration treatment vs. incision of acute simple perianal abscess. Randomized controlled study

***K.M. Sørensen*[1,2], *S. Möller*[3,1], *N. Qvist*[1,2].** *[1]University of Southern Denmark, Clinical Institute, Odense, Denmark, [2]Odense University Hospital, Surgery, Odense C, Denmark, [3]Odense University Hospital, OPEN – Open Patient data Explorative Network, Odense C, Denmark*

Background: Needle aspiration of an acute simple perianal abscess may be an alternative to conventional incision drainage with potential advantages in wound healing, functional outcome and quality of life.
Aim and objectives: To compare the outcome of needle aspiration and postoperative antibiotics with conventional surgical incision drainage of acute perianal abscess. Primary outcome was abscess recurrence. Secondary outcomes were fistula formation, wound healing, quality of life and fecal continence.
Results: 98 were included. Recurrence rate was 41% in needle aspiration and 15% in incision drainage, with HR of 3.03 (p=0.014). Fistula formation was 15% without significant difference between the groups. No significant difference was found in wound healing, quality of life or fecal incontinence scores.

16 Treatment for colorectal cancer weakens female patients quality of life due to postoperative urinary dysfunction

***S. Sinimäki*[1], *H. Elfeki*[2,1], *S. Laurberg*[1], *K.J. Emmertsen*[3].** *[1]Aarhus University Hospital, Colorectal Research Unit, Aarhus N, Denmark, [2]Mansoura University Hospital, Department of General Surgery, Mansoura, Egypt, [3]Regional Hospital Randers, Department of Surgery, Randers, Denmark*

Background: Research in colorectal cancer has mostly focused on improving detection and treatment. Therefore, there is an increasing number of colorectal cancer survivors and hence an increasing focus on postoperative sequela, and how this may affect quality of life. This study was carried out to identify potential risk factors for female urinary dysfunction and to investigate how this affects patients' QoL.
Results: In total, 5211 eligible female patients treated for colorectal cancer (3533 colon cancer, 1678 rectal cancer) in the given period of time responded to the questionnaire (response rate 52,04%). There was significantly impaired urinary function amongst rectal cancer (RC) patients compared to colon cancer (CC) patients. Radiotherapy was a significant risk factor for developing urinary dysfunction, but the type of rectal

resection did not have an impact when adjusting for other co-variates. In both CC and RC patients, there was a significant correlation between impaired QoL and urinary dysfunction.

17 Injection of freshly collected autologous adipose tissue to treat idiopathic anal fistulas

***H.R. Dalby*[1], *A. Dige*[2], *B.G Pedersen*[3], *K. Krogh*[2], *J. Agnholt*[2], *H.T Hougaard*[1], *L. Lundby*[1].**
[1]Aarhus University Hospital, Department of Surgery, Pelvic Floor Unit, Aarhus N, Denmark, [2]Aarhus University Hospital, Department of Hepatology and Gastroenterology, Aarhus N, Denmark, [3]Aarhus University Hospital, Department of Radiology, Aarhus N, Denmark

Background: Anal fistulas are associated with reduced quality of life. Injection of cultured autologous or allogenic adipose-tissue-derived mesenchymal stem cells (ASCs) has shown promising results, but is time-consuming, requires laboratory facilities and is expensive. Freshly collected autologous adipose tissue could be a cost-effective, easily accessible alternative.
Results: The primary outcome of complete fistula healing was achieved by 40 patients (50%). Complete fistula resolution on MRI was demonstrated in 10 (12.5%) patients achieving the primary outcome. Ten patients (12.5%) experienced reduced or ceased secretion and decreased anal discomfort.
Treatment was well tolerated. Five patients (4.3%) experienced serious adverse events requiring surgical intervention. Active smoking had a significantly negative influence on healing, and higher BMI significantly increased the risk for complications that could be scored by the Clavien-Dindo classification.

19 Non-microradical resection margin as a predictor of recurrence in stage III colon cancer patients undergoing complete mesocolic excision: a prospective cohort study

***A. Kierkegaard Gundestrup*[1,2], *A.S. Friis Olsen*[1,2], *P. Ingeholm*[3], *B. Bols*[3], *J. Kleif*[1,2], *C.A. Bertelsen*[1,2].** *[1]Nordsjællands Hospital, Department of Surgery, Hillerød, Denmark, [2]University of Copenhagen, Department of Clinical Medicine, Copenhagen, Denmark, [3]Herlev Hospital, Department of Pathology, Herlev, Denmark*

Background: In order to evaluate the prognostic value of the present definition of microradicality, this study aims to investigate whether the risk of recurrence after complete mesocolic excision (CME) for stage III colon cancer is associated with the distance from tumour tissue to resection margin, and whether the location of involved margin is of any significance.
Results: We included 276 patients, 41 (15%) patients had a non-microradical resection. The 3·2-year cumulative incidence of recurrence for 0 mm margin was 43%, and 24% for ≤ 1 mm margin without direct invasion, corresponding to a hazard ratio of 4·3 (p=0·0146) and 1·3 (p=0·474) respectively. The location of the involved margin showed no significant differences.

20 Diverticulitis increases the risk of colon cancer: A nationwide cohort study based on Danish registers

***L.Q. Mortensen*[1], *K. Andresen*[1], *L. Thygesen*[2], *H.-C. Pommergaard*[3], *J. Rosenberg*[1].** *[1]Herlev Hospital, Center for Perioperative Optimization, Department of Surgery, Herlev, Denmark, [2]University of Southern Denmark, National Institute of Public Health, Copenhagen, Denmark, [3]Rigshospitalet, Department of Surgical Gastroenterology, Copenhagen, Denmark*

Background: An association between diverticulitis and colon cancer has been proposed and debated for many years. Evidence is conflicting on the matter, and no pathogenesis has been confirmed. Only some guidelines recommend follow-up colonoscopy after an episode of diverticulitis to rule out malignancy. The aim of this study was to investigate if patients with diverticulitis have an increased risk of developing colon cancer.

Results: We included 28,686 exposed and 143,430 unexposed. The mean age at inclusion was 67.5 years (standard deviation 14.6), and 60.6% were female. In the exposed group 2.1% developed colon cancer, and in the unexposed group 1.5% , giving a risk ratio (RR) of 1.44 (95% CI 1.31-1.57). Cox regression showed a significantly increased risk of colon cancer among exposed, HR 1.6 (95%CI 1.5-1.8). Kaplan Meier illustrated that the incidence of colon cancer in the exposed group was particularly high in the first 6 months after diagnosis of diverticulitis. Hereafter, there was a lower HR in the exposed group. This protective effect lasted until approximately 8 years later. The exposed had a decreased risk of stage 1 cancer RR 0.33 (95% CI 0.14-0.81) and an increased risk of stage 3 cancer RR 1.58 (95% CI 1.04-2.4) in the first 6 months. After the first 6 months the exposed group had a decreased risk of stage 4 cancer, RR 0.70 (95% CI 0.53-0.94).

23 Histopathological features, treatment and survival in a Danish national cohort of patients with early-onset colorectal cancer diagnosed in 2001-2013

***E. Frostberg*[1,2], *J. Lindebjerg*[3], *F.B. Sørensen*[4], *H. Rahr*[1,2].** *[1]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Surgery, Vejle, Denmark, [2]University of Southern Denmark, The Department of Regional Health Research, Faculty of Health Sciences, Odense, Denmark, [3]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Pathology, Vejle, Denmark, [4]Aarhus University Hospital, The Department of Pathology, Aarhus, Denmark*

Background: The incidence of early-onset colorectal cancer (eoCRC) in patients ≤ 40 years seems to increase worldwide. Previous studies have reported conflicting data on histopathological features, treatment intensity and survival in patients with eoCRC. The aim of this study was to describe pathological characteristics, treatment and survival data in Danish eoCRC patients in the period 2001-2013 and to compare these data with a cohort of elderly patients with CRC.
Results: Adverse histopathological features of the tumor were more common in eoCRC patients (high grade: 16% vs. 9%, p=0.0005; venous invasion: 26% vs. 19%, p=0.01; perineural invasion: 23% vs. 13%, p<0.0001; higher N-stage, p<0.0001). Surgical treatment did not differ markedly between age groups, but young patients received more oncological treatment and had better stage-specific 5-year overall survival compared to elderly patients. The hazard ratio (HR) for young patients with stage I-III disease, in an adjusted model, was 0.68 (95% CI: 0.48-0.96) and 0.57 (95% CI: 0.35-0.94) for colon and rectal cancer, respectively.

24 Associations between unfavorable histopathological features, symptom duration and survival in a nationwide cohort of young and elderly patients with colorectal cancer

***E. Frostberg*[1,2], *H. Rahr*[1,2], *J. Lindebjerg*[3].** *[1]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Surgery, Vejle, Denmark, [2]University of Southern Denmark, The Department of Regional Health Research, Faculty of Health Sciences, Odense, Denmark, [3]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Pathology, Vejle, Denmark*

Background: Literature on the prognostic impact of high risk pathological factors such as perineural (PI) and intravascular (VI) tumor infiltration, tumor budding (TB), tumor infiltrating lymphocytes (TILs) and tumor stroma ratio (TSR) in early-onset colorectal cancer (eoCRC) is limited. The objective of this study was to assess tumor characteristics and investigate the prognostic value of these parameters, and their association with symptom duration in a national cohort of eoCRC patients.
Results: Similar proportions of TSR, TB, VI and PI were seen between eoCRC and elderly patients, and all high risk factors were significantly associated with poorer 5-year overall survival in both young and old. In the adjusted survival models, TILs were associated with improved survival while lymph node metastasis, distant metastasis and PI were associated with adverse outcome in eoCRC. Longer symptom duration had neither association with adverse histopathological parameters nor poor survival in the young.

25 The prevalence of pathogenic or likely pathogenic germline variants in a nationwide cohort with early onset colorectal cancer using a panel of 18 genes associated with colorectal cancer

***E. Frostberg*[1,2], *A. Høgh Petersen*[3], *A. Bojesen*[4], *H. Rahr*[1,2], *J. Lindebjerg*[5], *K. Rønlund*[3].**
[1]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Surgery, Vejle, Denmark, [2]University of Southern Denmark, The Department of Regional Health Research, Faculty of Health Sciences, Odense, Denmark, [3]Vejle Hospital, University Hospital of Southern Denmark, The Department of Clinical Genetics, Vejle, Denmark, [4]Aarhus University Hospital, The Department of Clinical Genetics, Aarhus, Denmark, [5]Colorectal Cancer Center South, Vejle Hospital, University Hospital of Southern Denmark, The Department of Pathology, Vejle, Denmark

Background: The prevalence of pathogenic or likely pathogenic germline variants in colorectal cancer (CRC) in young patients is seen in approximately one in five patients, with the majority of cases having gene variants associated with Lynch syndrome (LS). The primary aim was to describe the prevalence of 18 genes, all associated with hereditary polyposis and CRC in a nationwide population of early-onset CRC (eoCRC) and outline disease characteristics in patients with or without germline variants.
Results: PGV were detected in twenty-four patients (24.5%), and twenty-one patients (21.1%) had variants in the mismatch repair (MMR) genes associated with LS. Deficient MMR based on immunohistochemistry staining was seen in 95% of the patients with LS. Variants in the APC and MUTYH genes were detected in 1% and 4%, respectively. Patients with NPGV had more advanced disease with adverse histopathological features.

26 Standardization of restorative rectal cancer resection is feasible and has the potential to decrease anastomotic leakage rate. A prospective single center study

***J.D. Eriksen*[1], *A. Tøttrup*[1], *C.B. Nørager*[1], *K. Ljungmann*[1], *N. Thomassen*[1], *L.H. Iversen*[1].**
[1]Aarhus University Hospital, Department of Surgery, Aarhus N, Denmark

Background: Anastomotic leakage (AL) after restorative rectal cancer resection (RRCR) is a feared complication with significant impact on patient outcome. Studies have demonstrated AL-rate after RRCR up to 22%. Intra operative risk factors, for instance mobilization of the splenic flexure, have been a focus to decrease AL-rate. However, there is no consensus on how to perform a standardized RRCR to minimize the risk of AL. The aim of our study was to evaluate implementation of a standardization of RRCR with specific surgical elements at a primary referral center for rectal cancer. Furthermore, we want to evaluate the AL-rate during implementation of the standardization of RRCR.
Results: Completion of the forms was 88% (137/155). Throughout the study period, completion of the standardization increased from 44% to 95%. The AL rate decreased during the study period, and between January 2020 and August 2020 the AL rate was 3.8% (1/26).

32 Inhalational or total intravenous anesthesia and recurrence after colorectal cancer surgery. A propensity score matched study based on Danish registries

***R.P. Hasselager*[1], *J. Hallas*[2], *I. Gögenur*[1].** *[1]Zealand University Hospital, Center for Surgical Science, Koege, Denmark, [2]Odense University Hospital, Clinical Pharmacology and Pharmacy, Odense, Denmark*

Background: During colorectal cancer surgery, the immune-modulating effects of inhalational anesthesia may create a favorable environment for metastasis formation, which results in poor long-term oncologic outcomes.

Here, our aim was to assess the association between inhalational vs intravenous anesthesia and cancer recurrence in patients undergoing colorectal cancer surgery.
Results: We identified 5238 patients exposed to inhalational anesthesia and 6322 to intravenous anesthesia. Propensity score matching yielded 4347 individuals in each group with balanced baseline covariates. We found an association between recurrence and exposure to inhalational anesthesia, HR 1.12 (CI 1.02-1.23). The HR estimates for all-cause mortality and disease-free survival were 1.00 (CI 0.93-1.07) and 1.04 (CI 0.98-1.11), respectively.

34 Anastomotic techniques and leakage rates in minimally invasive right hemicolectomy for cancer. A 4-year nationwide cohort from the Danish Colorectal Cancer Registry (DCCG)

***H. Würtz*[1], *E. Frostberg*[1], *L. Bundgaard*[1], *H. Rahr*[1].** [1]*Vejle Sygehus, Sygehus Lillebælt, Organkirugisk afdeling, Vejle, Denmark*

Background: Intracorporeal anastomosis (ICA) has been proposed as the method of choice for joining the bowel ends in minimally invasive right hemicolectomy (MIRH). Recent studies, on the other hand, have suggested higher leakage rates after stapled anastomosis.
Results: Between February 2015 and December 2018, 2829 patients were available. We excluded139 patients with incomplete data, leaving 2690 patients for analysis. Overall leakage rate was 2.3%. The highest leakage rate was seen after functional end-to-end "Barcelona" technique, whereas the lowest rate was seen after hand-sewn end-to-end anastomosis. Stapled techniques had significantly higher leakage rate than hand-sewn techniques. A significant difference between intra- and extracorporeal techniques could not be demonstrated. More detailed analyses will be presented.

36 Injection of freshly collected autologous adipose tissue in non-healing- or primary anal-near pilonidal sinus disease

***S. Gaarslev Vestergaard*[1], *M.J. Sørensen*[1], *L. Lundby*[2], *H. Terri Hougaard*[2], *A. Gorm Pedersen*[1], *S. Haas*[1].** [1]*Randers Regional Hosptial, Department of Surgery, Randers NØ, Denmark,* [2]*Aarhus Universitet, Department of Surgery, Aarhus N, Denmark*

Background: Pilonidal sinus disease (PSD) is a common disorder. Treatment failure and disease recurrence are common, leading to significant morbidity in these patients. This study investigated the efficacy of injecting freshly collected autologous adipose tissue in non-healing PSD wounds after closed off-midline surgery and primary anal-near PSD.
Results: Complete healing was achieved in 26 patients (86.7% (74.5;98.9)). Mean time to healing was 169 ± 105 days. The mean operation time was 69 ± 24 minutes and the mean amount of injected adipose tissue was of 19 ± 10 ml. All surgery was conducted without complications. All patients reported marked decrease in symptoms shortly after the procedure.

2.1 Hepatopancreaticobilliary (HPB)

13 Gastroskopisk kolangioskopi gennem accidental choledochoduodenostomi efter perkutan transhepatisk kolangiografi (PTC) hos en patient med dissemineret pancreascancer

***M. Ørting*[1], *J. Krzak*[2].** [1]*Aarhus University Hospital, Mave- og Tarmkirurgi, Aarhus, Denmark,* [2]*Sygehus Sønderjylland, Kirurgi, Aabenraa, Denmark*

Background: ERCP (Endoscopic Retrograde Cholangiopancreatography) er "golden standard" i behandlingen af malign galdevejsobstruktion pga lavest komplikationsrate og højest succesrate. Når ERCP ikke er mulig er

alternativerne PTC, Endoscopic ultrasonography-guided choledochoduodenostomy (EUS-CD) eller kirurgisk bypass. I vores center er PTC førstevalg efter ERCP. PTC er associeret med en højere komplikationsrate end både ERCP og EUS i form af kolangitis, perforation, blødning, pneumothorax og fisteldannelse. I denne case rapporterer vi om et tilfælde af accidental choledochoduodenostomi.
Results: 62 år gammel kvinde indlægges med 14 dage med øvre abdominalia og icterus. Ultralyd viser dobbelt duct tegn og cholecystolithiasis. Bilirubin 92 umol/l. CT-pancreas viste en 18 mm malignsuspekt tumor i caput pancreatis. Biopsi viste adenocarcinom. Whipples-procedure blev planlagt, men peroperativt vurderes patienten non-resektabel grundet indvækst i v. cava inferior. Efterfølgende ERCP mislykkedes, og PTC blev udført med store vanskeligheder på grund af flere via falsa. Endelig blev der anlagt en 10x100 mm fully covered SEMS (selv ekspanderende metalstent) til duodenum, og patienten startede kemoterapi. I løbet af de næste par måneder tilkom progression af sygdommen med lungemetastaser og peritoneal karcinomatose. På grund af stent-okklusion, opkastning og obstruktion i anden del af duodenum på grund af tumor (CT-scanning) blev der udført en subakut ERCP. Efter fjernelse af stenten blev en choledochoduodenostomi visualiseret i en tumoromdannet bulbus duodenum. Åbningen var 12 mm bred og åbentstående og direkte kolangiografi blev udført med gastroskop til niveauet med bifurkaturen. Kolangiografi viste intrahepatisk dilatation, men ingen stenoser og frit afløb af galde. Vi kunne konstatere 6-7 cm tumor-okklusion på overgangen mellem 1. og 2. stykke af duodenum, hvor igennem vi kunne anlægge en 22x120 mm uncovered SEMS, der muliggjorde passage fra choledochoduodenostomi gennem SEMS til duodenum.

40 Præoperativ jernmangel hos patienter med cancer pancreas

***M.M.K. Kadhim*[1], *A.R. Knudsen*[1].** [1]*Aarhus Universitetshospital, Mave- og Tarmkirurgisk afdeling, Aarhus N, Denmark*

Background: Fejlernæring og anæmi er hyppigt forekommende blandt patienter med nykonstateret kræftsygdom. Man ved at jernmangel og deraf følgende anæmi øger risiko for postoperative komplikationer hos patienter der opereres for kolorektalcancer. Patienter med kræft i bugspytkirtlen er en anden sårbar gruppe, som ofte har haft et længere forløb med vægttab, exocrin pancreas-insufficiens og icterus forud for den endelige diagnose. Hyppigheden af jernmangel prævalensen af jernmangel blandt patienter med c. pancreas præ-operativt er hidtil ikke undersøgt i Danmark. Jernmangel kan være en forløber til anæmi og forværre det postoperative outcome.
Results: 47 patienter blev opereret på mistanke om cancer pancreas. Yderligere data under bearbejdelse, forventes klar ultimo september 2020.

4.1 Hernia

11 Current use of patient-reported outcome measures for inguinal hernia repair: a quantitative systematic review

***A. Gram-Hanssen*[1], *M. Lyhne Jessen*[1], *C. Christophersen*[1], *D. Zetner*[1], *J. Rosenberg*[1]**
[1]*Herlev Hospital, Center for Peroperativ Optimering, Afdeling for Mave-, Tarm- og Leversygdomme, Herlev, Denmark*

Background: To quantitatively assess the use of patient-reported outcome measures in studies involving patients undergoing inguinal hernia repair.
Results: We included 929 studies that covered 81 different patient-reported outcome measures. Of these, the Short-Form 36 was the most commonly used generic instrument (14%), the Carolinas Comfort Scale was the most commonly used hernia-specific instrument (5%), and the Visual Analogue Scale was the most commonly used domain-specific instrument (70%). There was a proportional decrease in the use of generic instruments, from 24% of studies in 2000-2004 to only 14% of studies in 2015-2019. Conversely, there was an increase in the use of hernia-specific instruments, from 0% in 2000-2004 to 18% in 2015-2019.

18 Lower recurrence rate after groin and primary ventral hernia repair performed by high-volume surgeons: A systematic review

***C. Christophersen*[1], *S. Fonnes*[1], *K. Andresen*[1], *J. Rosenberg*[1].** *[1]Center for Perioperative Optimization, Department of Surgery, Herlev Hospital, University of Copenhagen, Denmark, Herlev, Denmark*

Background: Hernia repair is a common procedure; however, an overview is lacking regarding the impact of annual surgeon volume on the outcome of hernia repair. We aimed to explore the impact of annual surgeon volume and total surgical experience on outcomes of groin and primary ventral hernia repair.
Results: Three databases were searched resulting in 2,756 records. Ten records for groin hernia and one for primary ventral hernia were included. The median (range) recurrence rates after laparoscopic groin hernia repair for high-, medium-, and low-volume surgeons were 2.6% (2.3–3.0), 2.4% (0.7–4.6), and 4.2% (1.0–6.8), respectively. The median (range) recurrence rate after open groin hernia repair for high-, medium-, and low-volume surgeons were 2.1% (2.0–2.2), 1.7% (1.6–2.3), and 2.4% (2.2–5.0), respectively. The groin hernia recurrence rate seemed to increase when annual surgeon volume decreased below 25 cases/year. Three studies reported on the operation time for groin hernia based on annual surgeon volume, which showed that higher annual surgeon volume led to a shorter operation time. For primary ventral hernia, increased annual surgeon volume was associated with decreased reoperation rate.

21 Qualitative study of surgeons' and anaesthesiologists' considerations in choosing anaesthesia for open inguinal hernia repair

***J.H.H. Olsen*[1], *J. Laursen*[1], *J. Rosenberg*[1].** *[1]Center for Oerioperative Optimization, Department of Surgery, Herlev Hospital, Herlev, Denmark*

Background: Danish and international guidelines recommend local anaesthesia for open inguinal hernia repair, but local anaesthesia is rarely used in clinical practice. We aimed to investigate this discrepancy between guidelines and practice by exploring surgeons' and anaesthesiologists' considerations regarding use of anaesthesia and possible barriers that they may experience regarding use of local anaesthesia for open inguinal hernia repair.
Results: Results will be added after completion of data analysis and before the conference.

28 Type of mesh affects the re-operation rate for recurrence in laparoscopic ventral hernia repair: A nationwide cohort study

***J.J. Baker*[1], *S. Oberg*[1], *K. Andresen*[1], *J. Rosenberg*[1].** *[1]Center for Perioperative Optimization, Department of Surgery, Herlev and Gentofte Hospital, Herlev, Denmark*

Background: Over the last decades ventral hernia repair has improved, however, the recurrences rates, which are up to 30%, are still too high. Recently, one type of mesh was taken off the market due to an increased recurrence rate. The purpose of this study was to compare the re-operation for recurrence rate between the different types of meshes, in laparoscopic ventral hernia repair.
Results: The eligible study population comprised of 2.874 patients with a primary and 2.726 with an incisional hernia. In the Kaplan Meier plot, Ventralex™ Hernia Patch had the lowest re-operation for recurrence curve in the cohort of primary hernias, and for incisional hernias, it was the Ventralight™ ST mesh. In the cox regression for primary hernias, Physiomesh™ (HR=3.73) and Proceed™ mesh (HR=2.81) had a significantly higher risk of re-operation for recurrence than Ventralex™ Hernia Patch. For incisional hernias, Physiomesh™ (HR=3.88), Ventralex (HR=2.91), Parietex™ Composite (including optimized PCOx) (HR=2.55), and Proceed™ mesh (HR=2.63) all had a significantly higher risk of re-operation for recurrence than the group with Ventralight™ ST mesh.

37 Short and long-term complications following robot-assisted ventral hernia repair

***A. Valsamidis*[1]**. [1]*Sygehus Sønderjylland, Kirurgisk Afdeling, Aabenraa, Denmark*

Background: Robot-assisted ventral hernia repair has recently been introduced as an alternative to open repair or repair with conventional laparoscopy. We report our short and long-term results from 99 cases performed at our institution with this method.
Results: Eighty-one repairs were performed for non-incisional hernias (82%), seven (7.1%) for midline incisional hernias and 11 (11.1%) for transverse incisional hernias. Mean age of the study subjects was 58±12.8 years and mean BMI 30.2±4.7 kg/m2. Mean hernia defect size was 4.1±2.4 cm. Mean follow-up was 18 months with a mean hospital stay of 0.9±3.2 days. Mean mesh size (ProGrip, Medtronic) was 204± 58 cm2. In 1.0% of cases a subcutaneous infection occurred. No case of deep mesh infection or mesh explantation was recorded. 4.0% developed a seroma which required percutaneous drainage on one or more occasions. Skin necrosis was observed in 1 (1%) of the study subjects. Chronic pain was observed in two subjects (2%). One patient reported of bulging at the hernial site 3 month after the operation.

39 Short and long-term complications following incisional hernia repair with the Peritoneal Flap technique

***M. Frederichsen*[1]**. [1]*Sygehus Sønderjylland, Kirurgisk Afdeling, Aabenraa, Denmark*

Background: The peritoneal flap technique is a modification of the Rives-Stoppa retromuscular mesh repair, which uses the hernial sac to bridge the fascial gap and isolate the mesh from both the intraperitoneal contents and the subcutaneous space. We report our short and long-term results from 78 cases undergoing repair with the peritoneal flap technique performed in a Danish center.
Results: Elective repair was performed for midline (50%) or transverse hernias. 51.3% of cases were performed for incisional hernia repair. Mean age of the study subjects was 58±13.2 years and mean BMI 32±7.2 kg/m2. Men defects hernia size was 8.3 cm. Mean follow-up was 17 months with a mean hospital stay of 5.4±5.6 days. Mean mesh size (Optilene Elastic 48 g/cm2, BBraun) was 417 cm2. Abdominoplasty was performed in 32 % of cases. In 6.4% of cases a subcutaneous infection occurred requiring wound debridement and vacuum dressings. No cases of deep mesh infection or mesh explantation was recorded. 24.2% developed a seroma which required percutaneous drainage on one or more occasions. Skin necrosis was not observed in any of the study subjects. Chronic pain was observed in two subjects (3%). No episode of hernia recurrence was recorded within the follow-up period.

4.2 Acute care surgery

14 Is acute appendicitis still a clinical diagnosis? Use of preoperative diagnostic imaging before appendectomy in Denmark during 2000-15

T. Obel*[1,2], *C.A. Bertelsen*[1,2], *J. Kleif*[1,2] [1]*University of Copenhagen, Department of Clinical Medicine, Copenhagen N, Denmark,* [2]*Nordsjællands Hospital, Department of Surgery, Hillerød, Denmark

Background: Acute appendicitis has traditionally been a clinical diagnosis but the use of preoperative diagnostic imaging has increased in many countries. We aimed to examine whether appendicitis is still a clinical diagnosis by investigating the use of ultrasonography, computed tomography (CT) and magnetic resonance imaging (MRI) of the abdominal region before appendectomy was performed in Denmark during the period 2000-15. Secondly, we examined regional, age and gender differences regarding the use of preoperative diagnostic imaging.
Results: 82,162 patients underwent surgery for appendicitis during 2000-15. A total of 6,195 (7.5%) patients had preoperative diagnostic imaging; 4,877 (5.9 %) patients had an ultrasonography; 1,400 (1.7%) patients had a CT and 55 (<0.1%) patients had an MRI. The use of ultrasonography increased from 0.1% in 2000 to 8.7% in 2005 and then decreased to 4.6% in 2015. The use of CT of the abdominal region was non-existing until 2003 but has since increased to 4.0% in 2015.

29 Change in the incidence of appendicitis in a controlled environment during the national lockdown throughout the COVID-19 pandemic

***A. Sylvester-Hvid*[1], *A. Bang-Nielsen*[1], *C.A. Bertelsen*[1,2], *C. Torp-Petersen*[3], *J. Kleif*[1,2].**
[1]Nordsjællands Hospital, Department of Surgery, Hillerød, Denmark, [2]University of Copenhagen, Department of Clinical Medicine, København N, Denmark, [3]Nordsjællands Hospital, Department of Research, Hillerød, Denmark

Background: Infectious diseases could play a role in some cases of appendicitis. Studies suggest that there is a seasonal variation in incidence rate of appendicitis which also could suggest that infectious diseases participate in the pathogenesis of appendicitis. With the current COVID-19 pandemic lockdown, the spread of influenza and other infectious diseases have severely decreased. Therefore, we have a unique opportunity to study the incidence rate of appendicitis in an environment without the many common community infections potentially playing a role in the pathogenesis of appendicitis. The study aims to examine whether a nationwide lockdown with an entire population subjugated to social distancing reduces the incidence of appendicitis. If a reduction is detected, it supports the hypothesis that infectious disease may play a role in the etiology of appendicitis.
Results: We will compare the incidence rate of appendicitis during the current controlled environment due to the COVID-19pandemic with the incidence rate of appendicitis during the same time period from the former three years. The period contains four weeks in total. The observational period for the exposed group is from March 23 to April 19, 2020 and the unexposed group will be from March 23 to April 19 of each year 2017–2019. Our primary outcome is the difference in incidence of appendicitis during the 4-week periods. Secondary outcomes will be 30-day mortality and incidence of complicated appendicitis.

30 Komplikationer relateret til laparoskopisk adgang

***J.B. Christensen*[1], *U.S. Løve*[2].** *[1]Regional Hospital of Viborg, Department of Surgery, Viborg, Denmark, [2]Aarhus University, Department of Clinical Medicine, Aarhus N, Denmark*

Background: Formålet med dette studie var at opgøre komplikationsraten relateret til den laparoskopiske adgang på samtlige patienter opereret på kirurgisk afdeling, Regionshospitalet Viborg i 2016.
Results: 1372 patienter blev opereret i løbet af studieåret. 3 patienter (0,22%) fik tarm- eller organlæsioner relateret til enten Veress kanyle eller kameraporten. Ud af disse var der 2 skader på tyndtarmen og 1 på ventriklen. 1 af disse 3 patienter havde adhærencer (oment). Alle 3 operationer var udført ved speciallæge. Ingen patienter fik Intraabdominal karlæsion. 10 patienter (0,73%) fik bugvægskarskade (porthulsblødning). Af disse var 4 operationer udført ved speciallæge, 6 operationer ved en ikke-speciallæge. 30 dages mortaliteten var 0,44%, ingen dødsfald var relateret til den laparoskopiske adgang.

33 Traumatisk Neurom svt. peritoneum / bugvæggen efter diagnostisk laparoskopi

***C.A.A. Mardones*[1], *J. Krzak*[1], *P. Bak*[2], *P. Helligsø*[1].** *[1]Sygehus Sønderjylland, Organkirurgisk Afdeling, Aabenraa, Denmark, [2]Kolding Sygehus, Afdeling for Kvindesygedomme og Fødsler, Kolding, Denmark*

Background: Traumatisk neurom (TN) er en ikke-neoplastisk tumor i de perifere nerver efter traume eller operation på grund af en afskåret nerve. TN består af axoner, Schwann celler og bindevæv. TN kan være symptomatisk eller asymptomatisk og findes almindeligt på ekstremiteter. TN er meget sjældent beskrevet i bugvæggen eller i lille bækken.
Results:
34 årig kvinde fik påvist endometriose ved laparoskopi i 2013 (biopsiverificeret). Laparoskopien var udført i forbindelse med hysterosalpingografi (HSG) i fertilitetsøjemed. Efter den første laparoskopiske operation fik patienten foretaget flere diagnostiske laparoskopier på grund af mavesmerter (2014 og 2 gange i 2016). Endometriose og vedvarende symptomer var årsagen til laparoskopisk hysterektomi i 2016. Efter hysterektomien præsenterede patienten igen tilbagevendende mavesmerter og blindtarmsbetændelses lignende symptomer. Atter foretages diagnostisk laparoskopi (2018), hvor der påvistes lymfadenitis i mesenteriet. I august 2019 indlægges

patienten igen med akutte mavesmerter. Smerterne var lokaliseret periumbilicalt og flyttede sig senere til højre nedre kvadrant. Gynækologisk årsag blev udelukket. Forværrede stærke smerter, beskrives af patienten som brændende, medvirkede til beslutningen om atter at udføre diagnostisk laparoskopi. Under operationen fandtes fortykket appendix, hvorfor der blev foretaget laparoskopisk appendektomi. Der fandtes også fortykket peritoneum i hø. nedre kvadrant som excideredes med saks med henblik på patologisk undersøgelse – obs. endometriose.
Histologien vidste normalt væv svt. appendix - og overaskende traumatisk neurom svarende til peritoneum. Patienten forbliver asymptomatisk ved opfølgning 1, 6 og 12 måneder efter operationen.

38 Spontan omentblødning som årsag til akut abdomen

***A.K.N. Nielsen*[1].** *[1]Sygehus Sønderjylland, Kirurgisk Afdeling, Aabenraa, Denmark*

Background: Spontan omentblødning er en sjælden komplikation, der kan ses hos patienter med hæmoragisk diatese som følge af antikoagulerende behandling. Tilstanden kan være livsfarlig. Der er kun beskrevet få tilfælde i litteraturen.
Results: Blødningen var ophørt spontant uden nogen intervention. Blodtabet blev anslået til 3 liter. Patientens INR var ved indlæggelsen 3, hvilket vurderes at kunne forklare den spontane blødning fra omentet.