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Coloproctologie

Groter aantal geoogste lymfeklieren bij coloncarcinoom geassocieerd met betere overleving

Population-based study to re-evaluate optimal lymph node yield in colonic cancer, Del Paggio J.C., BJS. 2017 July 1; Volume 104 – Issue 8, pages 1087-1096.
Pubmedid 28542954

Background
It is well established that lymph node (LN) yield in colonic cancer resection has prognostic significance, although optimal numbers are not clear. Here, LN thresholds associated with both LN positivity and survival were evaluated in a single population-based data set.
Method
Treatment records were linked to the Ontario Cancer Registry to identify a 25 per cent random sample of all patients with stage II/III colonic cancer between 2002 and 2008. Multivariable regression and Cox models evaluated factors associated with LN positivity and cancer-specific survival (CSS) respectively. Optimal thresholds were obtained using sequential regression analysis.
Results
On adjusted analysis of 5508 eligible patients, younger age (P < 0·001), left-sided tumours (P = 0·003), higher T category (P < 0·001) and greater LN yield (relative risk 0·89, 95 per cent c.i. 0·81 to 0·97; P = 0·007) were associated with a greater likelihood of LN positivity. Regression analyses with multiple thresholds suggested no substantial increase in LN positivity beyond 12–14 LNs. Cox analysis of stage II disease showed that lower LN yield was associated with a significant increase in the risk of death from cancer (CSS hazard ratio range 1·55–1·74; P < 0·001) compared with a greater LN yield, with no significant survival benefit beyond a yield of 20 LNs. Similarly, for stage III disease, a lower LN yield was associated with an increase in the risk of death from cancer (CSS hazard ratio range 1·49–2·20; P < 0·001) versus a large LN yield. In stage III disease, there was no observed LN threshold for survival benefit in the data set.
Conclusion
There is incongruity in the optimal LN evaluation for colonic cancer. Although the historically stated threshold of 12 LNs may ensure accurate

C-seal zorgt niet voor minder naadlekkages bij gestapelde colorectale anastomoses

Randomized clinical trial of biodegradeable intraluminal sheath to prevent anastomotic leak after stapled colorectal anastomosis. Bakker I.S., BJS, 2017 Jul; Volume 104 – Issue 8, pages 1010-1019
PMID: 28488729

Background

Anastomotic leakage is a potential major complication after colorectal surgery. The C-seal was developed to help reduce the clinical leakage rate. It is an intraluminal sheath that is stapled proximal to a colorectal anastomosis, covering it intraluminally and thus preventing intestinal leakage in case of anastomotic dehiscence. The C-seal trial was initiated to evaluate the efficacy of the C-seal in reducing anastomotic leakage in stapled colorectal anastomoses.

Method

This RCT was performed in 41 hospitals in the Netherlands, Germany, France, Hungary and Spain. Patients undergoing elective surgery with a stapled colorectal anastomosis less than 15 cm from the anal verge were eligible. Included patients were randomized to the C-seal and control groups, stratified for centre, anastomotic height and intention to create a defunctioning stoma. Primary outcome was anastomotic leakage requiring invasive treatment.

Results

Between December 2011 and December 2013, 402 patients were included in the trial, 202 in the C-seal group and 200 in the control group. Anastomotic leakage was diagnosed in 31 patients (7·7 per cent), with a 10·4 per cent leak rate in the C-seal group and 5·0 per cent in the control group (P = 0·060). Male sex showed a trend towards a higher leak rate (P = 0·055). Construction of a defunctioning stoma led to a lower leakage rate, although this was not significant (P = 0·095).

Conclusion

C-seal application in stapled colorectal anastomoses does not reduce anastomotic leakage. Registration number: NTR3080 (http://www.trialregister.nl/trialreg/index.asp).

UPPER GI

Geen verschil tussen open en scopische Nissen fundoplicatie op lange termijn

Seventeen-year Outcome of a Randomized Clinical Trial Comparing Laparoscopic and Conventional Nissen Fundoplication: A Plea for Patient Counseling and Clarification. Oor J.E., Annals of Surg 2017 Jul; June 2017 – Volume 266 – Issue 1 – p 23-28 Pubmedid 28294958

Objective

To analyze long-term outcome of a randomized clinical trial comparing laparoscopic Nissen fundoplication (LNF) and conventional Nissen fundoplication (CNF) for the treatment of gastroesophageal reflux disease (GERD).

Background

LNF has replaced CNF, based on positive short and mid-term outcome. Studies with a follow-up of over 15 years are scarce, but are desperately needed for patient counselling.

Methods

Between 1997 and 1999, 177 patients with proton pump inhibitor (PPI)-refractory GERD were randomized to CNF or LNF. Data regarding the presence of reflux symptoms, dysphagia, general health, PPI use, and need for surgical reintervention at 17 years are reported.

Results

A total of 111 patients (60 LNF, 51 CNF) were included. Seventeen years after LNF and CNF, 90% and 95% of the patients reported symptom relief, with no differences in GERD symptoms or dysphagia. Forty-three and 49% of the patients used PPIs (NS). Both groups demonstrated significant improvement in

general health (77% vs 71%; NS) and quality of life (75.3 vs 74.7; NS). Surgical reinterventions were more frequent after CNF (18% vs 45%; P = 0.002), mainly due to incisional hernia corrections (3% vs 14%; P = 0.047).

Conclusions

The effects of LNF and CNF on symptomatic outcome and general state of health remain for up to 17 years after surgery, with no differences between the 2 procedures. CNF carries a higher risk of surgical reintervention, mainly due to incisional hernia corrections. Patients should be informed that 17 years after Nissen fundoplication, 60% of the patients are off PPIs, and 16% require reoperation for recurrent GERD and/or dysphagia.

Operatiedag geen invloed op de overleving in patiënten met in opzet curatief behandeld oesofaguscarcinoom

Impact of Weekday of Esophagectomy on Short-term and Long-term Oncological Outcomes: A Nationwide Population-based Cohort Study in the Netherlands. Visser E., Ann Surg 2017 Jun; Volume 266 – Issue 1 – p 76-81
Pubmedid 27537540

Objective

The aim of this study was to determine whether weekday of esophagectomy impacts 30-day mortality, and short- and long-term oncologic outcomes in esophageal cancer.

Summary of background data

Recent literature suggests a relationship between the weekday of esophagectomy and overall survival. This finding could impact clinical practice, but has not yet been validated in other studies.

Methods

The Netherlands Cancer Registry database (2005–2013) identified all patients who underwent esophagectomy for esophageal cancer. The impact of weekday on 30-day mortality, the total number of resected lymph nodes, and R0 resection rates was evaluated with multivariable logistic regression analyses and for overall survival with Cox regression analyses.

Results

In total, 3840 patients were included. Weekday was not significantly associated with 30-day mortality (P > 0.05), nor the total number of resected lymph nodes (P > 0.05), nor with R0 resection rates (P > 0.05). Also, weekday did not significantly influence overall survival using weekday as discrete variable [Monday–Friday, hazard ratio (HR) 0.98, P = 0.140), as 2 weekday categories (Wednesday–Friday vs Monday–Tuesday, HR 0.97, P = 0.434), or with separate weekday categories (Tuesday vs Monday, HR 0.99, P = 0.826; Wednesday vs Monday, HR 1.06, P = 0.430; Thursday vs Monday, HR 0.92, P = 0.206; Friday vs Monday, HR 0.91, P = 0.140).

Conclusions

This large population-based cohort study in the Netherlands refutes the finding from a previous report that suggests that the weekday of esophagectomy in patients diagnosed with potentially curable esophageal cancer impacts overall survival. In addition, this study demonstrates that weekday of esophagectomy does not influence other outcomes including the 30-day mortality, total number of resected lymph nodes, and R0 resection rates.

HPB

Drainage geassocieerd met betere uitkomsten in patiënten met een pancreasfistel na pancreaticoduodenectomie in vergelijking met relaparotomie

Management of Severe Pancreatic Fistula After Pancreatoduodenectomy. F.J. Smits, JAMA Surg 2017 Jul; 152(6):540-548
Pubmedid 2603370

Iimportance
Postoperative pancreatic fistula is a potentially life-threatening complication after pancreatoduodenectomy. evidence for best management is lacking.
Objective
To evaluate the clinical outcome of patients undergoing catheter drainage compared with relaparotomy as primary treatment for pancreatic fistula after pancreatoduodenectomy.
Design, setting, and participants
A multicenter, retrospective, propensity-matched cohort study was conducted in 9 centers of the Dutch Pancreatic Cancer Group from January 1, 2005, to September 30, 2013. from a cohort of 2196 consecutive patients who underwent pancreatoduodenectomy, 309 patients with severe pancreatic fistula were included. propensity score matching (based on sex, age, comorbidity, disease severity, and previous reinterventions) was used to minimize selection bias. data analysis was performed from January to July 2016.
Exposures
First intervention for pancreatic fistula: catheter drainage or relaparotomy.
Main outcomes and measures primary end point was in-hospital mortality; secondary end points included new-onset organ failure.
Results
Of the 309 patients included in the analysis, 209 (67.6%) were men, and mean (sd) age was 64.6 (10.1) years. Overall in-hospital mortality was 17.8% (55 patients): 227 patients (73.5%) underwent primary catheter drainage and 82 patients (26.5%) underwent primary relaparotomy. Primary catheter drainage was successful (ie, survival without relaparotomy) in 175 patients (77.1%). With propensity score matching, 64 patients undergoing primary relaparotomy were matched to 64 patients undergoing primary catheter drainage. mortality was lower after catheter drainage (14.1% vs 35.9%; p = .007; risk ratio, 0.39; 95% ci, 0.20-0.76). The rate of new-onset single-organ failure (4.7% vs 20.3%; p = .007; risk ratio, 0.15; 95% ci, 0.03-0.60) and new-onset multiple-organ failure (15.6% vs 39.1%; p = .008; risk ratio, 0.40; 95% ci, 0.20-0.77) were also lower after primary catheter drainage.
Conclusions and relevance
In this propensity-matched cohort, catheter drainage as first intervention for severe pancreatic fistula after pancreatoduodenectomy was associated with a better clinical outcome, including lower mortality, compared with primary relaparotomy.

Nodal involvement onderschat in klinische stadiering van patiënten met pancreascarcinoom

Implications of inaccurate clinical nodal staging in pancreatic adenocarcinoma. Swords D.S., Surgery 2017, July; Volume 162, Issue 1, Pages 104–111
Pubmedid 28238344

Background
Many patients with stage I-II pancreatic adenocarcinoma do not undergo resection. We hypothesized that (1) clinical staging underestimates nodal involvement, causing stage IIB to have a greater percent of resected patients and (2) this stage-shift causes discrepancies in observed survival.
Methods
The Surveillance, Epidemiology, and End Results (SEER) research database was used to evaluate cause-specific survival in patients with pancreatic adenocarcinoma from 2004–2012. Survival was compared using the log-rank test. Single-center data on 105 patients who underwent resection of pancreatic adenocarcinoma without neoadjuvant treatment were used to compare clinical and pathologic nodal staging.
Results
In SEER data, medium-term survival in stage IIB was superior to IB and IIA, with median cause-specific survival of 14, 9, and 11 months, respectively (P < .001). Seventy-two percent of stage IIB patients underwent resection vs 28% in IB and 36% in IIA (P < .001). In our institutional data, 12.4% of

patients had clinical evidence of nodal involvement vs 69.5% by pathologic staging (P < .001). Among clinical stage IA–IIA patients, 71.6% had nodal involvement by pathologic staging.
Conclusion
Both SEER and institutional data support substantial underestimation of nodal involvement by clinical staging. This finding has implications in decisions regarding neoadjuvant therapy and analysis of outcomes in the absence of pathologic staging.

LEVERCHIRURGIE

Overlevingsvoordeel chirurgie bij resectabel stadium B Barcelona Clinic Liver HCC in vergelijking met niet-chirurgische opties

Survival benefit of liver resection for Barcelona Clinic Liver Cancer stage B hepatocellular carcinoma, Kim H., BJS 2017, July; Volume 104 – Issue 8, pages 1045-1052 Pubmedid 28480964

Background
Although transarterial chemoembolization is recommended as the standard treatment for Barcelona Clinic Liver Cancer stage B hepatocellular carcinoma (BCLC-B HCC), other treatments including liver resection have been used. This study aimed to determine the survival benefit of treatment strategies including resection for BCLC-B HCC compared with non-surgical treatments.
Method
The nationwide multicentre database of the Korean Liver Cancer Association was reviewed. Patients with BCLC-B HCC who underwent liver resection as a first or second treatment within 2 years of diagnosis and patients who received non-surgical treatment were selected randomly. Survival outcomes of propensity score-matched groups were compared.
Results
Among 887 randomly selected patients with BCLC-B HCC, 83 underwent liver resection as first or second treatment and 597 had non-surgical treatment. After propensity score matching, the two groups were well balanced (80 patients in each group). Overall median survival in the resection group was better than that for patients receiving non-surgical treatment (50·9 versus 22·1 months respectively; P < 0·001). The 1-, 2-, 3- and 5-year overall survival rates in the resection group were 90, 88, 75 and 63 per cent, compared with 79, 48, 35 and 22 per cent in the no-surgery group (P < 0·001). In multivariable analysis, non-surgical treatment only (hazard ratio (HR) 3·35, 95 per cent c.i. 2·16 to 5·19; P < 0·001), albumin level below 3·5 g/dl (HR 1·96, 1·22 to 3·15; P = 0·005) and largest tumour size greater than 5·0 cm (HR 1·81, 1·20 to 2·75; P = 0·005) were independent predictors of worse overall survival.
Conclusion
Treatment strategies that include liver resection offer a survival benefit compared with non-surgical treatments for potentially resectable BCLC-B HCC.

Chirurgische behandeling recidief HCC na levertransplantatie gunstige invloed op mortaliteit

Predicting Mortality in Patients Developing Recurrent Hepatocellular Carcinoma After Liver Transplantation: Impact of Treatment Modality and Recurrence Characteristics. Bodzin A.S., Annals of Surg 2017, June; Volume 266 – Issue 1 – p 118-125 Pubmedid 27433914

Objective
To evaluate predictors of mortality and impact of treatment in patients developing recurrent hepatocellular carcinoma (HCC) following liver transplantation (LT).

Summary of Background Data
Despite well-described clinicopathologic predictors of posttransplant HCC recurrence, data on prognosis following recurrence are scarce.
Methods
Multivariate predictors of mortality following HCC recurrence were identified to develop a risk score model to stratify prognostic subgroups among 106 patients developing posttransplant recurrence from 1984 to 2014, including analysis of recurrence treatment modality on survival.
Results
Of 857 patients undergoing LT, 106 (12.4%) developed posttransplant HCC recurrence (median 15.8 months following LT) with a median post-recurrence survival of 10.6 months. Patients receiving surgical therapy (n = 25) had a median survival of 27.8 months, significantly superior to patients receiving nonsurgical therapy (10.6 months) and best supportive care (3.7 months, P < 0.001). Multivariate predictors of mortality following recurrence included model for end-stage liver disease at LT >23, time to recurrence, >3 recurrent nodules, maximum recurrence size, bone recurrence, alphafetoprotein at recurrence, donor serum sodium, and pretransplant recipient neutrophil–lymphocyte ratio. A risk score model based on multivariate predictors accurately stratified recurrent HCC patients into prognostic subgroups, with low-risk patients (<10 points) demonstrating excellent median survival of 70.6 months, significantly superior to the medium-risk (12.2 months, 10–16 points) and high-risk (3.4 months, >16 points) groups (C-statistic 0.75, P < 0.001).
Conclusions
In the largest single-center report of recurrent HCC following LT, surgical treatment in well-selected patients is associated with significantly improved survival and should be pursued. A risk score model accurately stratifies prognostic subgroups, and may help guide treatment strategies.

BARIATRISCHE CHIRURGIE

Kosten bariatrisch chirurgie lager in ziekenhuizen in de VS met lagere complicatiepercentages

Hospital Quality and Medicare Expenditures for Bariatric Surgery in the United States. Ibrahim A.M., Ann Surg 2017 Jun; Volume 266 – Issue 1 – p 105-110 Pubmedid 27607102

OBJECTIVE: To evaluate effect on comorbid disease and weight loss 5 years after Roux-en-Y gastric bypass (RYGB) surgery for morbid obesity in a large nationwide cohort.

BACKGROUND: The number patients having surgical procedures to treat obesity and obesity-related disease are increasing. Yet, population-based, long-term outcome studies are few.

METHODS: Data on 26,119 individuals [75.8% women, 41.0 years, and body mass index (BMI) 42.8 kg/m2] undergoing primary RYGB between May 1, 2007 and June 30, 2012, were collected from 2 Swedish quality registries: Scandinavian Obesity Surgery Registry and the Prescribed Drug Registry. Weight, remission of type 2 diabetes mellitus, hypertension, dyslipidemia, depression, and sleep apnea, and 34 changes in corresponding laboratory data were studied. Five-year follow-up was 100% (9774 eligible individuals) for comorbid diseases.

RESULTS: BMI decreased from 42.8±5.5 to 31.2±5.5 kg/m2 at 5 years, corresponding to 27.7% reduction in total body weight. Prevalence of type 2 diabetes mellitus (15.5%–5.9%), hypertension (29.7%–19.5%), dyslipidemia (14.0%–6.8%), and sleep apnea (9.6%–2.6%) was reduced. Greater weight loss was a positive prognostic factor, whereas increasing age or BMI at baseline was a negative prognostic factor for remission. The use of antidepressants increased (24.1%–27.5%). Laboratory status was improved, for example, fasting glucose and glycated hemoglobin decreased from 6.1 to 5.4 mmol/mol and 41.8% to 37.7%, respectively.

CONCLUSIONS: In this nationwide study, gastric bypass resulted in large improvements in obesity-related comorbid disease and sustained weight loss over a 5-year period. The increased use of

antidepressants warrants further investigation

Gastric bypass in ratten geassocieerd met verminderde inflammatie, antidiabetische eigenschappen en minder oxidatieve schade

Roux-en-Y gastric bypass improves glucose homeostasis, reduces oxidative stress and inflammation in livers of obese rats and in Kupffer cells via an AMPK-dependent pathway. Peng Y. Surgery, July 2017 . Volume 162, Issue 1, Pages 59–67
Pubmedid 28291540

IMPORTANCE: The combination of obesity and foregut surgery puts patients undergoing bariatric surgery at high risk for postoperative pulmonary complications. Postoperative incentive spirometry (IS) is a ubiquitous practice; however, little evidence exists on its effectiveness. Objective To determine the effect of postoperative IS on hypoxemia, arterial oxygen saturation (Sao2) level, and pulmonary complications after bariatric surgery.

DESIGN, SETTING, AND PARTICIPANTS: A randomized noninferiority clinical trial enrolled patients undergoing bariatric surgery from May 1, 2015, to June 30, 2016. Patients were randomized to postoperative IS (control group) or clinical observation (test group) at a single-center tertiary referral teaching hospital. Analysis was based on the evaluable population. Interventions The controls received the standard of care with IS use 10 times every hour while awake. The test group did not receive an IS device or these orders.

MAIN OUTCOMES AND MEASURES: The primary outcome was frequency of hypoxemia, defined as an Sao2 level of less than 92% without supplementation at 6, 12, and 24 postoperative hours. Secondary outcomes were Sao2 levels at these times and the rate of 30-day postoperative pulmonary complications.

RESULTS: A total of 224 patients (50 men [22.3%] and 174 women [77.7%]; mean [SD] age, 45.6 [11.8] years) were enrolled, and 112 were randomized for each group. Baseline characteristics of the groups were similar. No significant differences in frequency of postoperative hypoxemia between the control and test groups were found at 6 (11.9% vs 10.4%; P = .72), 12 (5.4% vs 8.2%; P = .40), or 24 (3.7% vs 4.6%; P = .73) postoperative hours. No significant differences were observed in mean (SD) Sao2 level between the control and test groups at 6 (94.9% [3.2%] vs 94.9% [2.9%]; P = .99), 12 (95.4% [2.2%] vs 95.1% [2.5%]; P = .40), or 24 (95.7% [2.4%] vs 95.6% [2.4%]; P = .69) postoperative hours. Rates of 30-day 9 postoperative pulmonary complications did not differ between groups (8 patients [7.1%] in the control group vs 4 [3.6%] in the test group; P = .24).

CONCLUSIONS AND RELEVANCE: Postoperative IS did not demonstrate any effect on postoperative hypoxemia, Sao2 level, or postoperative pulmonary complications. Based on these findings, the routine use of IS is not recommended after bariatric surgery in its current implementation