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Coloproctologie

Minder adhesies na laparoscopische CRC resectie

Multicenter Observational Study of Adhesion Formation After Open-and Laparoscopic Surgery for Colorectal Cancer; Stommel et al; Ann Surg 2018; 267 (4); 743-748.

Pubmed ID: 28207436

OBJECTIVE

The aim of this study was to compare adhesion formation after laparoscopic and open colorectal cancer resection.

SUMMARY OF BACKGROUND DATA

After colorectal surgery, most patients develop adhesions, with a high burden of complications. Laparoscopy seems to reduce adhesion formation, but evidence is poor. Trials comparing open- and laparoscopic colorectal surgery have never assessed adhesion formation.

METHODS

Data on adhesions were gathered during resection of colorectal liver metastases. Incidence of adhesions adjacent to the original incision was compared between patients with previous laparoscopic- and open colorectal resection. Secondary outcomes were incidence of any adhesions, extent and severity of adhesions, and morbidity related to adhesions or adhesiolysis.

RESULTS

Between March 2013 and December 2015, 151 patients were included. Ninety patients (59.6%) underwent open colorectal resection and 61 patients (40.4%) received laparoscopic colorectal resection. Adhesions to the incision were present in 78.9% after open and 37.7% after laparoscopic resection ($P < 0.001$). The incidence of abdominal wall adhesions and of any adhesion was significantly higher after open resection; the incidence of visceral adhesions did not significantly differ. The extent of abdominal wall and visceral adhesions and the median highest Zühlke score at the incision were significantly higher after open resection. There were no differences in incidence of small bowel obstruction during the interval between the colorectal and liver operations, the incidence of serious adverse events, and length of stay after liver surgery.

CONCLUSION

Laparoscopic colorectal cancer resection is associated with a lower incidence, extent, and severity of adhesions to parietal surfaces. Laparoscopy does not reduce the incidence of visceral adhesions.

Aanhoudende nodale betrokkenheid na neoadjuvante therapie in stadium III rectumcarcinoom geeft kortere ziektevrije overleving

Outcomes of persistent lymph node involvement after neoadjuvant therapy for stage III rectal cancer; Dinaux et al; Surgery 2018; 163 (4); 784-788.

Pubmed ID: 29277386

BACKGROUND AND OBJECTIVE

Lymph node involvement is a well-known predictor of recurrent rectal cancer in patient who did not undergo neoadjuvant therapy patients. The role of persistent lymph node disease after neoadjuvant treatment, however, is debatable. This study compares outcomes of patients with clinical, stage III rectal cancer who had nodal disease on surgical pathology after neoadjuvant treatment to patients with negative nodes.

METHODS

We reviewed retrospectively a consecutive cohort of all clinical, American Joint Committee on Cancer stage III rectal cancer patients who received neoadjuvant chemoradiotherapy and had an R0 resection at the Massachusetts General Hospital between 2004 and 2015.

RESULTS

A total of 166 patients met the inclusion criteria, of whom 53 had persistent nodal disease on pathologic examination. This group had a greater rate of local and distant disease recurrence and a shorter median recurrent disease-free survival than patients with a complete nodal response. In multivariable analyses for disease recurrence, disease free survival was greater for patients without positive results in lymph nodes on pathologic examination.

CONCLUSION

Persistent nodal involvement after neoadjuvant therapy is associated with an increased risk of distant metastases and a shorter disease-free survival. Identifying patients with treatment-resistant lymph nodes preoperatively and adjusting neoadjuvant treatment might result in better outcomes.

UPPER GI

Intrathoracale anastomose geeft lagere kans op lekkage na slokdarmresectie dan cervicale anastomose

Intrathoracic versus cervical anastomosis and predictors of anastomotic leakage after oesophagectomy for cancer; Gooszen et al; BJS 2018; 105 (5); 552-560.

Pubmed ID: 29412450

BACKGROUND

Studies comparing the anastomotic leak rate in patients with an intrathoracic versus a cervical anastomosis after oesophagectomy are equivocal. The aim of this study was to compare clinical outcome

after oesophagectomy in patients with an intrathoracic or cervical anastomosis, and to identify predictors of anastomotic leakage in a nationwide audit.

METHOD

Between January 2011 and December 2015, all consecutive patients who underwent oesophagectomy for cancer were identified from the Dutch Upper Gastrointestinal Cancer Audit. For the comparison between an intrathoracic and cervical anastomosis, propensity score matching was used to adjust for potential confounders. Multivariable logistic regression modelling with backward stepwise selection was used to determine independent predictors of anastomotic leakage.

RESULTS

Some 3348 patients were included. After propensity score matching, 654 patients were included in both the cervical and intrathoracic anastomosis groups. An intrathoracic anastomosis was associated with a lower leak rate than a cervical anastomosis (17.0 versus 21.9 per cent; $P = 0.025$). The percentage of patients with recurrent nerve paresis was also lower (0.6 versus 7.0 per cent; $P < 0.001$) and an intrathoracic anastomosis was associated with a shorter median hospital stay (12

versus 14 days; $P = 0.001$). Multivariable analysis revealed that ASA fitness grade III or higher, chronic obstructive pulmonary disease, cardiac arrhythmia, diabetes mellitus and proximal oesophageal tumours were independent predictors of anastomotic leakage.

CONCLUSION

An intrathoracic oesophagogastric anastomosis was associated with a lower anastomotic leak rate, lower rate of recurrent nerve paresis and a shorter hospital stay. Risk factors for anastomotic leak were co-morbidities and proximal tumours.

Textbook outcome klinisch relevante uitkomstmaat voor patiënten die slokdarm/maagkankerchirurgie ondergaan

Using textbook outcome as a measure of quality of care in oesophagogastric cancer surgery; Van der Kaaij et al.; BJS 2018; 105 (5); 561-569.

Pubmed ID: 29465746

BACKGROUND

Textbook outcome is a multidimensional measure representing an ideal course after oesophagogastric cancer surgery. It comprises ten perioperative quality-of-care parameters and has been developed recently using population-based data. Its association with long-term outcome is unknown. The objectives of this study were to validate the clinical relevance of textbook outcome at a hospital level, and to assess its relation with long-term survival after treatment for oesophagogastric cancer.

METHOD

All patients with oesophageal or gastric cancer scheduled for surgery with curative intent between January 2009 and June 2015 were selected from an institutional database. A Cox model was used to study the association between textbook outcome and survival.

RESULTS

A textbook outcome was achieved in 58 of 144 patients (40.3 per cent) with oesophageal cancer and in 48 of 105 (45.7 per cent) with gastric cancer. Factors associated with not achieving a textbook outcome were failure to achieve a lymph node yield of at least 15 (after oesophagectomy) and postoperative complications of grade II or more. After oesophagectomy, median overall survival was longer for patients with a textbook outcome than for patients without (median not reached versus 33 months; $P = 0.012$). After gastrectomy, median survival was 54 versus 33 months respectively ($P = 0.018$). In multivariable analysis, textbook outcome was associated with overall survival after oesophagectomy (hazard ratio 2.38, 95 per cent c.i. 1.29 to 4.42) and gastrectomy (hazard ratio 2.58, 1.25 to 5.32).

CONCLUSION

Textbook outcome is a clinically relevant measure in patients undergoing oesophagogastric cancer surgery as it can identify underperforming parameters in a hospital setting. Overall survival in patients with a textbook outcome is better than in patients without a textbook outcome.

HPB

Kortere tijd tussen diagnose en operatie niet beter voor patiënten met een stadium I-II pancreascarcinoom

Association of time-to-surgery with outcomes in clinical stage I-II pancreatic adenocarcinoma treated with upfront surgery; Swords et al.; Surgery 2018; 163 (4): 753-760.

Pubmed ID: 29248179

BACKGROUND AND OBJECTIVE

Time-to-surgery from cancer diagnosis has increased in the United States. We aimed to determine the association between time-to-surgery and oncologic outcomes in patients with resectable pancreatic ductal adenocarcinoma undergoing upfront surgery.

METHODS

The 2004–2012 National Cancer Database was reviewed for patients undergoing curative-intent surgery without neoadjuvant therapy for clinical stage I–II pancreatic ductal adenocarcinoma. A multivariable Cox model with restricted cubic splines was used to define time-to-surgery as short (1–14 days), medium (15–42), and long (43–120). Overall survival was examined using Cox shared frailty models. Secondary outcomes were examined using mixed-effects logistic regression models.

RESULTS

Of 16,763 patients, time-to-surgery was short in 34.4%, medium in 51.6%, and long in 14.0%. More short time-to-surgery patients were young, privately insured, healthy, and treated at low-volume hospitals. Adjusted hazards of mortality were lower for medium (hazard ratio 0.94, 95% confidence interval, .90, 0.97) and long time-to-surgery (hazard ratio 0.91, 95% confidence interval, 0.86, 0.96) than short. There were no differences in adjusted odds of node positivity, clinical to pathologic upstaging, being unresectable or stage IV at exploration, and positive margins. Medium time-to-surgery patients had higher adjusted odds (odds ratio 1.11, 95% confidence interval, 1.03, 1.20) of receiving an adequate lymphadenectomy than short. Ninety-day mortality was lower in medium (odds ratio 0.75, 95% confidence interval, 0.65, 0.85) and long time-to-surgery (odds ratio 0.72, 95% confidence interval, 0.60, 0.88) than short.

CONCLUSIONS

In this observational analysis, short time-to-surgery was associated with slightly shorter OS and higher perioperative mortality. These results may suggest that delays for medical optimization and referral to high volume surgeons are safe.

Minder pancreas fistels door externe stenting en weglaten van profylactische octreotide bij hoog risico anastomoses

Characterization and Optimal Management of High-risk Pancreatic Anastomoses During Pancreatoduodenectomy; Brett et al; Ann Surg 2018; 267 (4); 608-616.

Pubmed ID: 28594741

OBJECTIVE

The aim of this study was to identify the optimal fistula mitigation strategy following pancreaticoduodenectomy.

BACKGROUND

The utility of technical strategies to prevent clinically relevant postoperative pancreatic fistula (CR-POPF) following pancreatoduodenectomy (PD) may vary by the circumstances of the anastomosis. The Fistula Risk Score (FRS) identifies a distinct high-risk cohort (FRS 7 to 10) that demonstrates substantially worse clinical outcomes. The value of various fistula mitigation strategies in these particular high-stakes cases has not been previously explored.

METHODS

This multinational study included 5323 PDs performed by 62 surgeons at 17 institutions. Mitigation strategies, including both technique related (ie, pancreatogastrostomy reconstruction; dunking; tissue patches) and the use of adjuvant strategies (ie, intraperitoneal drains; anastomotic stents; prophylactic octreotide; tissue sealants), were evaluated using multivariable regression analysis and propensity score matching.

RESULTS

A total of 522 (9.8%) PDs met high-risk FRS criteria, with an observed CR-POPF rate of 29.1%. Pancreatogastrostomy, prophylactic octreotide, and omission of externalized stents were each associated with an increased rate of CR-POPF (all $P < 0.001$). In a multivariable model accounting for patient, surgeon, and institutional characteristics, the use of external stents [odds ratio (OR) 0.45,

95% confidence interval (95% CI) 0.25–0.81] and the omission of prophylactic octreotide (OR 0.49, 95% CI 0.30–0.78) were independently associated with decreased CR-POPF occurrence. In the propensity score matched cohort, an “optimal” mitigation strategy (ie, externalized stent and no prophylactic octreotide) was associated with a reduced rate of CR-POPF (13.2% vs 33.5%, $P < 0.001$).

CONCLUSION

The scenarios identified by the high-risk FRS zone represent challenging anastomoses associated with markedly elevated rates of fistula. Externalized stents and omission of prophylactic octreotide, in the setting of intraperitoneal drainage and pancreaticojejunostomy reconstruction, provides optimal outcomes.

LEVERCHIRURGIE

Meer dan de helft van de patiënten met R0-resectie van perihilar cholangiocarcinoom krijgt recidief

Recurrence after curative-intent resection of perihilar cholangiocarcinoma: analysis of a large cohort with a close postoperative follow-up approach; Komaya et al; Surgery 2018; 163 (4); 732-738.

Pubmed ID: 29336813

BACKGROUND AND OBJECTIVE

Although several studies have been conducted on the patterns of recurrence in resected perihilar cholangiocarcinoma, they have many limitations. The aim of this study was to investigate recurrence after resection and to evaluate prognostic factors on the time to recurrence and recurrence-free survival.

METHOD

Consecutive patients who underwent curative-intent resection of perihilar cholangiocarcinoma between 2001 and 2012 were reviewed retrospectively. The Cox proportional hazards model was used for multivariable analysis.

RESULTS

In the study period, 402 patients underwent resection of perihilar cholangiocarcinoma (R0, $n = 340$; R1, $n = 62$). Radial margin positivity ($n = 43$, 69%) was the most common reason for R1 resection. The median follow-up of survivors was 7.4 years. The cumulative recurrence probability was higher in R1 than in R0 resection (86% vs 57% at 5 years, $P < .001$). Seventeen R0 patients had a recurrence over 5 years after resection. There was no difference in median survival time after recurrence between R0 and R1 resection (10 vs 7 months). The proportion of isolated locoregional recurrence was higher in R1 than in R0 resection (37% vs 16%, $P < .001$), whereas the proportion of distant recurrence was similar. In R0 resection, the independent prognostic factors for time to recurrence and recurrence-free survival were microscopic venous invasion and lymph node metastasis.

CONCLUSION

More than half of patients with perihilar cholangiocarcinoma experience recurrence after R0 resection. These recurrences occur frequently within 5 years but occasionally after 5 years, which emphasizes the need for close and long-term surveillance. Adjuvant strategies should be considered, especially for patients with nodal metastasis or venous invasion even after R0 resection.

Nieuwe richtlijn voor RBC transfusie na hepatectomie

Ottawa Criteria for Appropriate Transfusions in Hepatectomy: Using the RAND/UCLA Appropriateness Method; Bennett et al; Ann Surg 2018; 267 (4); 766-774.

Pubmed ID: 28288056

OBJECTIVE

Create practice guidelines for the appropriate use of red blood cell transfusions in hepatectomy.

BACKGROUND

Hepatectomy is associated with a high prevalence of transfusions. A transfusion can be life-saving, but can be associated with important adverse effects. Given the prevalence, the potential for benefit and harm, and the difficulty in conducting clinical trials, transfusion in hepatectomy is well-suited for a study of appropriateness.

METHODS

Using the RAND/UCLA appropriateness method, an international, multidisciplinary expert panel in hepatobiliary surgery, anesthesia, transfusion medicine, and critical care rated a series of 468 perioperative scenarios for transfusion appropriateness. Scenarios were rated individually, and again during an inperson group moderated session. Median scores and level of agreement were calculated to classify each scenario as appropriate, inappropriate, or uncertain.

RESULTS

Approximately, 47.4% of scenarios were rated as appropriate for transfusion, 28.2% were inappropriate, and 24.4% were uncertain. The key recommendations for intraoperative transfusion were (i) it is never inappropriate to transfuse for significant bleeding or ST segment changes; (ii) it is never inappropriate to transfuse for an intraoperative hemoglobin ≤ 75 g/L; and (iii) in the absence of significant bleeding or ST changes, transfusion for hemoglobin of ≥ 95 g/L is inappropriate, and transfusion for hemoglobin of ≥ 85 g/L requires strong justification. The key recommendations for postoperative transfusions were: (i) in a stable, asymptomatic patient, an appropriate transfusion trigger is 70 g/L (without coronary artery disease) or 80 g/L (with coronary artery disease) and (ii) it is appropriate to transfuse any patient for a hemoglobin of ≤ 75 g/L either immediately post-operative, or with a significant decrease from the previous day (>15 g/L).

CONCLUSIONS

Based on best available evidence and expert opinion, criteria for appropriate perioperative red blood cell transfusions in hepatectomy were determined.

BARIATRISCHE CHIRURGIE

Nog altijd niet-verwaarloosbaar percentage trombose na sleeve gastrectomie

To What Extent Does Posthospital Discharge Chemoprophylaxis Prevent Venous Thromboembolism After Bariatric Surgery?: Results From a Nationwide Cohort of More Than 110,000 Patients; Thereaux et al.; Ann Surg 2018; 267 (4); 727-733.

Pubmed ID: 28475558

OBJECTIVE

The aim of the present study was to assess the incidence, risk factors, and the impact of posthospital discharge (PHD) chemoprophylaxis on venous thromboembolism (VTE) in patients undergoing bariatric surgery (BS).

BACKGROUND

VTE is a major concern after BS, especially during the PHD period. No large-scale study has previously focused on the clinical value of PHD chemoprophylaxis.

METHODS

In this nationwide observational population-based cohort study, all data from patients undergoing BS were extracted from the French National Health Insurance database (SNIIRAM) from 1st January 2012 to 31st September 2014. Logistic regression models were used to compute odds ratios for potential risk factors for VTE occurring within 90 postoperative days (PODs). The association between use of PHD chemoprophylaxis (heparin) and VTE was also assessed.

RESULTS

The majority (56%) of the 110,824 patients had sleeve gastrectomy. VTE rates during the first 30 and 90 PODs were 0.34% and 0.51%, respectively. On multivariate analyses, the major risk factors for VTE during the first 90 PODs were history of VTE [odds ratio = 6.33 95% confidence interval (4.44–9.00)], postoperative complications [9.23 (7.30–11.70)], heart failure [2.45 (1.48–4.06)], and open surgery [2.38 (1.59–3.45)]. PHD chemoprophylaxis was delivered to 75% of patients. No use of PHD chemoprophylaxis [1.27 (1.01–1.61)] was an independent predictive factor of VTE during the first 90 PODs [in the gastric bypass group: 1.51 (1.01–2.29)].

CONCLUSIONS

In the modern era of BS, this nationwide study shows a non-negligible rate of VTE especially after sleeve gastrectomy, depending on the individual risk level. Use of PHD chemoprophylaxis may decrease the risk of PHD VTE.