

overall survival time, a multivariate analysis was performed using the Cox proportional hazard model with a step-wise selection procedure.

Results: Preoperative TACE was performed in 15 patients among the 34 patients who underwent hepatic resection. In these patients, 6 patients were identified as having a tumour size reduction or necrosis of 50% or higher by preoperative TACE. The median operative time and blood loss during surgery were 355 min and 1983 ml, respectively. The postoperative morbidity and mortality rates were 44% and 2.9%. The proportional surviving rate (95% CI) for the 60 month time point was 0.20 (0.074–0.352), which was better than that of patients treated by TACE alone. The response after preoperative TACE (hazard ratio, 4.65; 95% CI, 1.39–15.5) and tumour diameter (hazard ratio, 2.78; 95% CI, 1.16–6.64) were identified as significant favorable preoperative prognostic factors for survival in the multivariate analysis. Patients with tumours smaller than 10 cm and significant effect of preoperative TACE had a more favorable survival than patients with tumours 10 cm or larger and who did not have a good effect of preoperative TACE.

Conclusion: A combination of aggressive surgical treatment and neoadjuvant treatment such as effective preoperative TACE treatment may prolong survival in selected patients with hepatocellular carcinoma invading the major vascular invasion.

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POSTER

Comparison of Two Gallbladder Cancer Treatment Strategies at a Chilean Cancer Center

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Background: Gallbladder cancer is the leading cause of cancer death in women in Chile. Even when present at a localized, resectable stage, prognosis is grim. Previous series have shown a survival benefit with an aggressive surgical approach. The objective of this study is to evaluate if the introduction of re-resection with hepatic segmentectomy and lymphadenectomy and the use of adjuvant treatments has improved overall survival for patients with gallbladder cancer treated at the Instituto Nacional del Cáncer, Santiago, Chile.

Material and Methods: We conducted a retrospective analysis of all patients with gallbladder cancer admitted to our institution between January 1983 and December 2002. Because of the implementation of an active treatment strategy after 1992, the series was divided into two treatment cohorts (TC): TC1 (1983–1992) where a conservative treatment approach was used, and TC2 (1993–2002), where a treatment plan including re-resection and adjuvant chemoradiation was offered to patients. Data was obtained from the medical charts. For patients lost for follow-up, date of death was obtained by death certificate. The sixth edition of the AJCC Staging system was used for TNM classification. Statistical analysis was performed using Epi Info™ Version 3.5.1.

n (%)	Total: 350 (100)	TC 1: 104 (100)	TC 2: 246 (100)
Age (years), mean (range)	57 (24–89)	58 (24–79)	57 (30–89)
Females, n (%)	286 (82%)	89 (86%)	197 (80%)
Stage			
Stage 0	1 (1%)	1 (1%)	0 (0%)
Stage I	83 (24%)	22 (21%)	61 (25%)
Stage II	82 (23%)	23 (22%)	59 (24%)
Stage III	54 (15%)	15 (15%)	39 (16%)
Stage IV	130 (37%)	43 (41%)	87 (35%)
Treatment ^a			
HS + LA	67 (19%)	1 (1%)	66 (27%)
CT (any indication)	42 (12%)	1 (1%)	41 (17%)
RT (curative)	40 (11%)	3 (3%)	37 (15%)
HS + LA + RT +/- CT	35 (10%)	0	35 (14%)
No curative treatment offered	305 (87%)	101 (97%)	204 (83%)

^aHS, Hepatic segmentectomy; LA, lymphadenectomy; CT, chemotherapy; RT, radiotherapy.

Results: A total number of 350 patients were identified: 104 in TC1 and 246 in TC2. Mean age at diagnosis was 57 years, and 82% of the patients were women. More than one third of the patients had stage IV disease at admission. The two groups were similar in terms of stage, age and gender. Treatment differed, with more radical surgeries performed, and radiation and chemotherapy administered in TC2 compared to TC1. Five and 10 year overall survival for TC1 was 10% and 7% respectively versus 15%

and 13% for TC2 (p = 0.014 and 0.009). When analyzed by stage, 5 year OS was 35% vs 49% for Stage I, 8% versus 12% for stage II, 1% versus 2% for stage III and 0 for stage IV. Multivariate analysis showed that re-resection (p = 0.03), radiation (p = 0.03) and chemotherapy (p = 0.007) were associated with longer survival.

Conclusions: Our series suggests that an active treatment approach with re-resection and adjuvant chemoradiation may increase survival of gallbladder cancer patients, although randomized trials are needed to establish a standard adjuvant treatment. Efforts towards prevention and early diagnosis are needed, as only a minority of patients are diagnosed at a stage where a curative treatment can be offered.

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POSTER

Fluorescence Angiography in Surgery of the Esophagus as a Tool in Reducing Rate of Anastomotic Leakage

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Introduction: Leakage at the anastomosis site is a very serious complication after esophageal resection, and can occur in up to 26% of patients. One of the factor involved in this complication is poor blood flow in the distal portion of the gastric tube. Fluorescence angiography using indocyanine green (ICG) was used as a method of determining the perfusion of the gastric conduit after esophagectomy. The effect on the rate of anastomotic complications was evaluated in a retrospective matched-pairs analysis.

Material and Methods: Analysis of 33 consecutive patients who underwent transhiatal esophagectomy (THE) due to cancer was done. In the first group in years 2008–2009 (15 patients) before performing the anastomosis, the blood flow in the area of the tube was evaluated using intravenous indocyanine green and observing its vascular flow with a camera equipped with an infrared laser. Patients with THE in years 2006–2007 (18 patients) without fluorescence angiography served as a control group. These two groups were matched for age, T-stage, anastomosis leakage, postoperative stay, emergency conditions, and body mass index.

Results: An overall reduction in the anastomotic leakage using fluorescence angiography was 21.1%. In the group without fluorescence angiography leakage was observed in 5 of 18 patients (27.8%). The fluorescence angiography showed vascular insufficiency of the distal gastric conduit in 4 patients – in all of these patients the anastomosis was performed end-to-side below the poor blood supply area and there was no subsequent leak. Leakage at the anastomosis site was observed only in 1 patient (6.66%) with good blood supply. The hospital stay was reduced from on average 23.7 days into average 11.7 days.

Conclusion: Fluorescence angiography is a simple tool in assessing the blood supply of the anastomotic side. In esophagus surgery it plays a big role and is associated with postoperative complications. This technique may significantly reduce not only the rate of severe complications but also the hospital length of stay.

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POSTER

Improved Lymph Node Retrieval in Gastric Cancer – Preliminary Positive Results of the DoCCS-study

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Background: The surgical treatment of gastric cancer consists of a gastric resection with a lymph node dissection. According to international guidelines, at least 15 lymph nodes should be harvested. Improved lymph node retrieval seems to be related to better survival. However, in the Netherlands, these goals are often not met.

In the Southern part of the Netherlands, therefore, a study is conducted to improve results by implementing a protocolized extended lymphadenectomy, the so called D1-extra lymphadenectomy. Goal is to harvest more lymph nodes without increasing morbidity and mortality.

Methods: In this phase II feasibility study 50 patients with curable gastric cancer are treated with 4 cycles of neoadjuvant chemotherapy consisting of docetaxel, cisplatin and capecitabine, followed by protocolized surgery and pathology. Surgery is performed by two surgeons from different hospitals. A (partial) gastric resection is performed and a lymph node dissection of stations 3–9 (Japanese classification) and according to location of the