

(18.5–24.99 kg/m²), overweight (25–29.99 kg/m²) and obese (≥30 kg/m²). Demographics, presence of Barrett's oesophagus or reflux disease, operative time, R0 resections, complications, LN resection and positivity were analysed. Long-term and disease free survival were calculated using the Kaplan–Meier method.

Results 413 patients were identified. 23 had no BMI recorded and were excluded leaving 390 patients: eight underweight; 117 normal BMI; 172 overweight; 93 obese. BMI significantly increased over time (mean BMI 26.0 in 2000–2001, 27.8 in 2010, p=0.041). Obese patients were younger compared to normal BMI patients (mean age 60.1 and 64.4 respectively, p=0.003). The incidence of Barrett's oesophagus and reflux disease were not significantly different between groups. Operating time was significantly longer for obese patients (p=0.018). R0 resections were similar between groups (normal patients 96.4% and obese 95.5%). The mean number of LNs resected (33 for both normal BMI and obese groups) and the LN ratio did not differ significantly between groups. Obese patients had significantly lower disease stages (32.3% stage 1 obese patients vs 16.2% stage 1 normal BMI patients, p=0.006). Overall survival was longer for obese patients compared with those of normal BMI (81 months vs 55 months, p=0.004). When matched for stage, this difference did not reach significance (p=0.236). Disease free survival did not differ between groups. The overall complication rate was similar between groups (70.1% for normal BMI, 66.3% for obese).

Conclusion This is the first study to evaluate BMI in a homogenous group of patients with adenocarcinoma undergoing subtotal oesophagectomy with a standardised radical lymphadenectomy. BMI and obesity among these patients increased with time. The radicality of surgery, in terms of LN yields and R0 resections, did not reduce in the obesity group and this is further supported by equivalent stage-matched long-term survival.

Competing interests None declared.

Free papers AUGIS HPB

OC-129

METASTATIC PANCREATIC NEUROENDOCRINE TUMOURS: DOES AGGRESSIVE SURGICAL INTERVENTION IMPROVE OUTCOME?

doi:10.1136/gutjnl-2012-302514a.129

M J White,* L M Edwards, S O Cawich, C Frola, M Abu Hilal, N W Pearce. *Department of Surgery, University Hospitals Southampton NHS Trust, Southampton, UK*

Introduction Pancreatic neuroendocrine tumours (PNETs) often present late. At diagnosis 65% of patients have metastases, with median survival of 24 months.^{1 2} The conventional approach is conservative management. Recent evidence has suggested that aggressive treatment leads to better outcomes.³ We aim to show that in a cohort of patients with advanced PNETs aggressive resection prolongs survival.

Methods All patients with intra-abdominal neuro-endocrine tumours (NETs) were assessed by the Hepato-pancreatobiliary and NET MDTs from April 2005 to January 2012 were prospectively registered on a database. All patients with PNETs were identified. Demographic, treatment, peri-operative and survival data were analysed using SPSS. Peri-operative morbidity was graded using the Clavien system. Predicted survival was calculated using the Kaplan–Meier method.

Results 239 patients were assessed. 61 patients had PNETs (36 female: 25 males) Median age of 65. 55 patients underwent 71 resections. 52 had primary tumours resected and three patients had the primary tumour left in situ. Procedures included: 29 conventional pancreatic resections; 17 extended (including vascular or multi-visceral resections); nine had pancreatic and liver (four synchronous, five sequential) resections; 16 were liver resections alone. 27 patients had 48 additional medical and radiological inter-

ventions. Peri-operative mortality was 0%. Overall morbidity 42%. Median blood loss was 700 ml. Three operated patients died from progressive disease. Five non-surgical patients died. Overall survival for PNETs was 92% at median follow-up of 3 years. Predicted 5 year survival rate was 72% in operated patients.

Conclusion An aggressive multi-modal approach with resection of advanced PNETs leads to excellent long term survival with acceptable morbidity in patients.

Competing interests None declared.

REFERENCES

1. Yao JC, et al. Everolimus for advanced pancreatic neuroendocrine tumours. *N Engl J Med* 2011;**364**:514–23.
2. Yao JC, et al. One hundred years after "carcinoid": epidemiology of and prognostic factors for neuroendocrine tumours in 35,825 cases in the United States. *J Clin Oncol* 2008;**26**:3063–72.
3. Ong SL, et al. A fuller understanding of pancreatic neuroendocrine tumours combined with aggressive management improves outcome. *Pancreatology* 2009;**9**:583–600.

OC-130

EMERGENCY CHOLECYSTECTOMY: AN ECONOMIC EVALUATION OF PRACTICE AT A REGIONAL HEPATOBILIARY CENTRE

doi:10.1136/gutjnl-2012-302514a.130

¹N Misra,* ¹V Kaliyaperumal, ²N Grimes, ²E McChesney, ²R Jones, ¹D Dunne, ¹G Poston, ¹S Fenwick, ¹H Malik. *¹North Western Hepatobiliary Centre, University Hospital Aintree, Liverpool, UK; ²University of Liverpool, Liverpool, UK*

Introduction The debate as to how to best manage patients presenting acutely with complications of gallstones continues—whether to consider early emergency surgery or not. Perceptions of increased risk and greatly increased cost still persist about the early approach. We report on our experience from a regional hepatobiliary centre.

Methods A retrospective clinical study was conducted of all patients admitted with acute biliary symptoms, and who underwent cholecystectomy between January 2008 and August 2011. Costing data were calculated for each patient on an individual basis, including all theatre consumables, drugs and calculated cost for length of stay. A decision tree analysis economic model was created, using input data derived from the clinical study as well as the individual patient level costs, and uncertainty in this model tested with probabilistic sensitivity analyses. Categorical data were analysed using the χ^2 test.

Results Of the 1888 patients who had a cholecystectomy during this period, 89 had an emergency or early laparoscopic cholecystectomy (eLC) and 310 patients presented acutely with biliary disease and then went on to have a delayed cholecystectomy (dLC). Overall median length of stay (LoS) for the eLC group was 6 days, and for the delayed group was 7 days (p=NS), including the primary admission for medical treatment. The emergency readmission rate for all patients on the waiting list was 13% with a median stay of 4.5 days. Post-operative readmission rates were equivalent for both eLC (8%) and dLC (9%)—p=NS. Mean operating time was longer in the eLC group than the dLC group—120 min vs 60 min (p<0.05). Post operative ERCP rates were 3% for the eLC group and 0% for the dLC group (p=NS), post operative fluid collections requiring intervention were 6% for the eLC group as opposed to 0% for the dLC group (p=NS). The baseline cost difference between the eLC and dLC groups was around £150 more expensive for the eLC group. After complications and readmission costs were calculated and inputted into the decision tree analysis, this difference decreased to a cost of £52—more expensive for the eLC pathway.

Conclusion Early cholecystectomy on the index admission appears to be safe, with overall hospital stay slightly shorter. The difference in costs between the early and delayed pathway was essentially cost equivalent. But with NHS tariff (around £3650 for eLC and £2900