

these editorial questions: is it new, is it true (validity, internal and external and does the evidence support the conclusions) and how will it affect patient care? For rejected manuscripts, read the reviews and consider appealing, but in doing so don't whine or get angry. Remember: every paper will find a home in the right journal!

Friday, 23 March, 14:00–15:30

Session VII. Gastric Cancer

PG 9.01

SPEAKER ABSTRACT

Optimal surgery for gastric cancer: Is more always better?

W. Allum. *Department of Surgery, Royal Marsden NHS Foundation Trust, London, United Kingdom*

The extent of surgical resection for carcinoma of the stomach has been debated for many years. The aims of surgery are to obtain complete histopathological clearance of all possible sites of disease based on oncological principles. This has included radical resection of the primary site with combined organ resection as required and resection of associated lymph nodes. Detailed understanding of the natural history of gastric cancer has resulted in the Pichlmayr total gastrectomy "en principe" approach being super-ceded by a tailored approach according to tumour and patient characteristics. Careful tumour staging is fundamental to the selection of surgical intervention. Endoscopic therapy is recommended for well-differentiated, mucosal cancers less than 2 cm in size as the risk of nodal disease is 0–3%. Recently these criteria have been extended to include some larger and ulcerated cancers. Although extended lymphadenectomy has formed the basis of radical surgery, Japanese experience has also confirmed that for early gastric cancer involving the submucosa limited nodal resection can achieve the same outcome as standardized D2 lymphadenectomy. The approach to locally advanced T2, T3 and some T4 cancers has been defined by the Japanese Rules specifying proximal and distal margins as well as extent of lymph node resection. Translation of Japanese results to Western patients has not been straightforward. Two randomized controlled trials have shown limited or no benefit over conventional limited nodal dissection. However these studies have not been without criticism and individual specialist practice in the West now preferentially includes D2 lymphadenectomy in suitable patients. Extending conventional D2 lymphadenectomy has been evaluated but the results are not conclusive. Japanese RCTs have not shown an advantage but in selected cases several groups have reported a benefit. Historically radical gastric surgery in the West was associated with significant morbidity and mortality reflecting the comorbidity of the patient groups. Perioperative approaches have shown that outcome approaching that of radical surgery can be achieved with multimodal therapies for high risk patient groups for whom radical surgery would be contraindicated. Surgery for gastric cancer needs to be determined by a multidisciplinary team to ensure appropriate procedure selection for an individual patient. This allows all relevant information to be considered and to provide the best chance for high quality patient outcome.

PG 9.02

SPEAKER ABSTRACT

Is endosonography and laparoscopy essential before neoadjuvant therapy?

C. Schuhmacher. *Chirurgische Klinik und Poliklinik, TU München, München, Germany*

Clinical assessment of tumour stage is an essential step prior to multimodal therapy in gastric cancer. Based on recent literature indication for neoadjuvant chemotherapy excludes patients with mucosal or sub-mucosal cancer (early gastric cancer) or – in advanced cases – patients with a peritoneal seeding. Different radiological and nuclear imaging techniques are available for staging. Nevertheless, they do not provide sufficient resolution in order to evaluate the depth of infiltration of primary tumour in the hollow organ (T-category) or to accurately assess the peritoneal cavity (M-category). Only advanced clinical situations such as ascites formation or bulky intra-peritoneal masses will be detected by (noninvasive) imaging modalities (without direct inspection of the peritoneum). Thus, endoscopic ultrasound and diagnostic laparoscopy are the only diagnostic tools to address this clinical category with acceptable accuracy.

Several randomized trials are available for multimodal therapy of gastric cancer. Among these the EORTC 40954 trial is the only clinical study including both staging modalities, EUS and diagnostic laparoscopy (DL) into the pretherapeutic staging process. The recently published French FFCD trial solely involved EUS in the clinical staging modalities and the pivotal MAGIC trial from UK did neither involve endoscopic ultrasound nor diagnostic laparoscopy. Although EUS is known for high accuracy in discriminating clinical T-categories, the results of the EORTC 40954 trial reported less convincing numbers in this matter. 50% of patients in the surgery alone treatment arm revealed tumours with T-categories less advanced than pT3. This might be attributed to the high

incidence of adenocarcinoma of the esophago-gastric-junction (AEG type II and III), a tumour location lacking serosal coverage.

In a prospective analysis of patients with locally advanced gastric cancer undergoing a diagnostic laparoscopy at the TU Munich, in 24% of all cases the diagnostic laparoscopy revealed findings, which beyond the standard imaging modalities, changed the initial stage of the disease.

In addition, detection of peritoneal seeding of gastric cancer will avoid unnecessary laparotomy and protect patients from a prognostically problematic tumour resection.

Retrieving peritoneal fluid for cytological assessment during the staging laparoscopy is an additional and highly useful diagnostic tool to rule out potential sources of therapy failure. Disseminated tumour cells result in a significant upstaging of the disease with dismal prognostic consequences even if no intra-peritoneal tumour growth is visible. These patients should rather be treated with a less toxic and yet lasting chemotherapy regimen including modern targeted antibody components.

Endoscopic ultrasound and diagnostic laparoscopy are essential in clinical staging of gastric cancer, especially in the context of multimodal therapy. Tomographic imaging modalities lack accuracy to detect both, early gastric cancer within the stomach wall and incipient peritoneal seeding.

Reference(s)

- Cunningham D, Allum WH, Stenning SP, et al. Perioperative chemotherapy versus surgery alone for resectable gastroesophageal cancer. *N Engl J Med* 355:11–20, 2006.
- Feussner H, Omote K, Fink U, et al. Pretherapeutic laparoscopic staging in advanced gastric carcinoma. *Endoscopy* 31(5):342–347, 1999.
- Kelly S, Harris KM, Berry E, et al. A systematic review of the staging performance of endoscopic ultrasound in gastro-oesophageal carcinoma. *Gut* 49:534–539, 2001.
- Schuhmacher C, Gretschel S, Lordick F, et al. Neoadjuvant chemotherapy compared with surgery alone for locally advanced cancer of the stomach and cardia: European Organisation for Research and Treatment of Cancer randomized trial 40954. *J Clin Oncol*. 2010 Dec 10;28(35):5210–8.

PG 9.03

SPEAKER ABSTRACT

Can adjuvant radiochemotherapy replace extended lymph node dissection?

E.P.M. Jansen. *Department of Radiation Oncology, Netherlands Cancer Institute, Antoni van Leeuwenhoek Hospital, Amsterdam, Netherlands*

Surgical resection remains an essential part in the curative treatment of gastric cancer [1]. However, with surgery only, long-term survival is poor (5-year survival <25% in Europe). Randomized studies that compared limited (D1) lymph node dissection with more extended (D2) resections in the Western world, failed to show a survival benefit for more extensive surgery. 15-year follow-up of the Dutch D1D2 trial showed that D2 surgery was associated with lower locoregional recurrence rates and gastric-cancer related death rates than D1 surgery [2]. Centralization of gastric cancer surgery in Denmark increased the percentage of patients with at least 15 lymph nodes removed from 19 to 76 [3]. A substantial increase in survival was found with peri-operative chemotherapy in the MAGIC study [4]. In addition, the SWOG/Intergroup 0116 study showed that postoperative chemoradiotherapy prolonged 5 year overall survival compared to surgery only [5]. Since 54% of patients in this study had a D0 dissection, many judged chemoradiotherapy (CRT) to compensate for suboptimal surgery. Investigators from the SWOG concluded that surgical undertreatment undermined survival in their trial, but subgroup analysis did not have enough power to detect an association between D-level and outcome [6]. However, in a Korean study with almost 1000 patients who all underwent a D2 dissection, 544 patients received postoperative CRT accordingly to the SWOG regimen [7]. Although patients were not compared in a randomized trial, the study demonstrated a survival benefit with postoperative CRT (5 year OS 57.1% vs. 51%, $p=0.02$). The percentage of patients that had >15 lymph nodes removed was >98% in both groups. Results of the already completed ARTIST trial from Korea (clinicaltrials.gov NCT 00323830), where 458 patients are randomized between postoperative capecitabine/cisplatin and capecitabine plus 45 Gy radiotherapy after D2 dissection, are eagerly awaited. At our institute phase I–II studies with adjuvant cisplatin and capecitabine based CRT have been performed in over 120 patients with resected gastric cancer. These studies demonstrated that intensive postoperative concurrent CRT has manageable toxicity [8–10]. Retrospective comparison of patients treated in these studies with those that had surgery only in the D1D2 study, demonstrated that postoperative CRT was associated with better outcome, especially after D1 or a R1 resection [11]. For daily practice it remains unclear whether patients with operable gastric cancer should have pre- (and post-) operative chemotherapy or postoperative CRT. To resolve this dilemma the CRITICS (ChemoRadiotherapy after Induction chemotherapy In Cancer of the Stomach) study was developed. The CRITICS study is a randomized phase III trial (clinicaltrials.gov NCT 00407186) in which all patients receive 3 courses of ECC chemotherapy and then have D1+ gastric resection. After surgery