Outcomes after Liver Resection and Multidisciplinary Management of Gastroenteropancreatic Neuroendocrine Tumour Liver Metastases

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Background: Metastatic liver disease from neuroendocrine tumours (mNETs) has a significant impact on prognosis. Although complete surgical resection remains the only potentially curative therapy, a multimodal approach is becoming the standard by which it is managed.

Aims: To describe outcomes after liver resection (LR) of mNETs in patients with and without a multimodal approach.

Methods: Retrospective analysis of patients undergoing LR for mNET at London Health Sciences Centre between 2004 and 2010.

Results: We performed 35 LR in 30 patients for mNET to the liver. The median age of the patients was 56.5 years. 19 (63.3%) had a primary intestinal NET, 6 (20%) had a primary pancreatic NET, 3 (10%) had a primary of NET of unknown origin. There was no perioperative mortality. Postoperative morbidity was 36%. Of the 30 patients who underwent LR 25 (83.3%) are alive with a mean followup of 53 months. 15 of the procedures resulted in an R0 resection; 10 of these went on to recurrence with the median time of 16 months to recurrence. 10 patients received preoperative treatment with systemic chemotherapy, TACE, or PRRT. Compared to those who received no preoperative treatment, there was a trend to increasing R0 resection but this was not significant nor was postoperative morbidity.

Conclusion: Liver resection for metastatic NET shows a favourable outcome for this contemporaneous group of patients. There was no clear advantage to multimodality therapy but this concept needs further research.