

NATIONAL BOWEL CANCER AUDIT

The effect of a specialist liver team on treatment and outcomes in colorectal cancer patients with synchronous liver metastases

NBCA: Short report 2

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Background

Colorectal cancer is the third most common cancer in the United Kingdom with over 40,000 new cases diagnosed each year ¹. Synchronous liver metastases are present in up to 20% of these patients, in whom median survival with chemotherapy alone is 6 to 22 months ^{2, 3}. Liver resection, in combination with resection of the primary tumour, is the only treatment to offer these patients a chance of cure. 5-year survival rates of 44-74% have been reported following liver resection⁴⁻⁶.

The National Institute for Health and Care Excellence recommends that if both primary and metastatic tumours are considered resectable the patient should be referred to a specialist hepatopancreaticobiliary (HPB) multidisciplinary team (MDT) ⁷. Despite this, wide variation in regional liver resection rates have been demonstrated across England ⁵. Nationwide HPB services are centralised in a “hub and spoke” arrangement. If referral pathways are working effectively, the presence of a HPB MDT at the diagnosing Trust should not affect rates of LR or survival.

This study investigates the liver resection rates, surgical timing and overall survival in patients diagnosed with bowel cancer and synchronous liver metastases in Trusts with a HPB MDT compared to those diagnosed in Trusts with no HPB MDT.

Methods

National Bowel Cancer Audit records of patients diagnosed with primary colorectal cancer between 2010 and 2014 who underwent bowel resection in English National Health Service hospitals were linked to Hospital Episode Statistics data. Patients with liver metastases and those who underwent liver resection were identified. Data regarding HPB MDT services were gathered from a survey carried out by the Audit team and completed by each Trust in 2015.

Results

- 1,956/4,547 (43.0%) patients with synchronous colorectal cancer and liver metastases who underwent a bowel resection, also had a liver resection.
- Patients diagnosed at a Trust with a HPB MDT were more likely to undergo a liver resection after adjusting for patient and tumour characteristics (545/1,081 (50.4%) vs. 1,411/3,466 (40.7%); odds ratio 1.51, (95% confidence intervals (CI) 1.20-1.91)).
- Patients diagnosed at Trusts with a HPB MDT were more likely to undergo a simultaneous liver and bowel resection (142/545 (26.1%) vs. 83/1,411 (5.9%); $p < 0.001$).
- The median overall survival, unadjusted for possible case mix differences, was greater in patients diagnosed at Trusts with a HPB MDT (30.6 months (95% CI 27.8-33.1) vs. 25.3 months (95% CI 23.9-26.9); $p < 0.001$).
- Diagnosis at a Trust with a HPB MDT was independently associated with better survival after controlling for patient and tumour characteristics (Hazard Ratio 0.82 (95% CI 0.72-0.93)).

Conclusions

This study indicates increased likelihood of liver resection and better survival in patients diagnosed with colorectal cancer and synchronous liver metastases at Trusts with a HPB MDT. These findings highlight the importance of streamlined referral pathways and explicit guidelines for colorectal MDTs to ensure the referral of all potentially eligible patients to specialist HPB centres.

References

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