

COLORECTAL LIVER METASTASES GUIDELINES

Liver Metastases from Colorectal Cancer

Barts and the London HPB Centre

Protocol September 2010

I. Screen for liver metastases in patients with colorectal cancer

Point to consider:

Follow-up protocol after resection of a primary colorectal cancer within our Centre is as follows, as far as detection of liver metastases is concerned:

Month 6 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 12 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 18 LFTs, CEA, **CT chest, abdomen, pelvis (or failing that MR)**
Month 24 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 30 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 36 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 48 LFTs, CEA, Ultrasound (or CT abdomen & pelvis)
Month 60 LFTs, CEA, Ultrasound (or CT abdomen & pelvis),
Colonoscopy

This protocol takes into account the UK recommendations that a CT should happen at least once in the first 2 years and that a colonoscopy should be repeated after 5 years

II. If a liver lesion is seen on Ultrasound, or the CEA is elevated – a contrast-enhanced CT of Chest, Abdomen and Pelvis (or alternatively MR) should be performed

Point to consider:

Avoid biopsy of liver lesions unless discussed with HPB team

III. Discuss at Multi-disciplinary meeting with Hepato-biliary surgical and radiological input

Points to consider:

Resection of colorectal liver metastases is associated with a peri-operative mortality of <5%, and a 30-40% 5-year survival. The decision to resect or not depends on

- The patient's overall fitness to withstand surgery
- Can all the metastatic disease be safely resected, with clear margins, leaving enough functioning liver? Multiple lesions and bilobar disease are not necessarily contraindications to resection.
- Extrahepatic disease that can be resected or ablated does not constitute a contraindication to liver resection
- Can seemingly unresectable disease be rendered resectable with
 - Portal vein embolisation (of the lobe to be resected, causing compensatory hypertrophy of the other lobe)

- Staged resection, with 8-12 weeks between the two stages to allow the residual liver to hypertrophy
- Multimodality approach, combining resection with other ablative techniques such as radiofrequency

IV. Once a decision on resectability has been made ...

1. If unresectable

Consider

- Systemic chemotherapy - see notes on Cetuximab NICE guidance below. These patients should be re-assessed in the HPB MDT or get a HPB surgical opinion after 4-6 cycles of chemotherapy to review resectability
- Ablation (radiofrequency or other) – the decision to offer ablation should be made at the specialist HPB MDT and ablation should be carried out at a centre that has adequate expertise
- Palliative support

2. If resectable

- Consider neo-adjuvant chemotherapy and inclusion in the new EPOC study
- Surgery should be performed at the regional HPB Unit at the Royal London
- Extrahepatic disease should be excluded with a FDG PET scan
- A colonoscopy should be performed if not done in past 12 months
- Assessment of residual liver volume should be done if a major resection is being considered
- Assessment of anaesthetic and surgical fitness should include cardio-pulmonary exercise testing (CPET) in high-risk patients and elderly patients.
- Proceed to resection
- For synchronous metastases diagnosed prior to colectomy, a decision will have to be made if the liver resection is to be combined with the colorectal resection or done later.
 - Availability of liver surgical expertise and surgical preference varies amongst centres. Some prefer to combine a right-sided colectomy with a liver resection, but perform a low left-sided colectomy separate from a liver resection.
 - It is best not to combine a major/extended hepatic resection with a colectomy.
 - If the 2 operations will be done separately one should consider if the delay might render the liver lesion unresectable. The decision on whether it should be colon first and liver later or vice versa, should be tailored to the individual patient's circumstances
 - Liver resection should only be performed by surgeons familiar with hepatic resection techniques.
 - If there is going to be delay in resecting the liver lesions, in the

interim consider chemotherapy to reduce tumour size or ablative techniques such as radiofrequency (these may even be combined with the colectomy), with an interval discussion at the HPB MDT to assess liver toxicity from systemic chemotherapy

V. Screening for recurrence after liver resection

Point to consider:

Follow-up protocol after resection of liver metastases within our Centre is as follows. This can be done at the referring hospital or at the Royal London, or alternately between the two sites. But a plan should be agreed between the two centres and adhered to.

Month 6 LFTs, CEA, CT abdomen & pelvis
Month 12 LFTs, CEA, CT abdomen & pelvis
Month 18 LFTs, CEA, CT abdomen & pelvis
Month 24 LFTs, CEA, CT abdomen & pelvis
Month 30 LFTs, CEA, CT abdomen & pelvis
Month 36 LFTs, CEA, CT abdomen & pelvis
Month 48 LFTs, CEA, CT abdomen & pelvis
Month 60 LFTs, CEA, CT abdomen & pelvis

Trials currently open:

New EPOC: A prospective randomised open label trial of oxaliplatin / irinotecan plus fluoropyrimidine versus oxaliplatin / irinotecan plus fluoropyrimidine and cetuximab pre and post operatively in patients with resectable colorectal liver metastases requiring chemotherapy. Here, one important inclusion criteria is that patients who are thought by the hepatic surgeon to be suboptimally resectable can be included. This will normally include patients, for instance, who have potentially resectable disease but in whom compromise of the resection margins is likely. These patients are currently normally treated with pre-operative chemotherapy under NICE guidance. This decision will be at the surgeons' discretion.

Cetuximab: NICE issued positive guidance on the use of Cetuximab In colorectal cancer on 26th August 2009. Cetuximab in combination with either 5-FU, FA and oxaliplatin (FOLFOX), or Capecitabine and Oxaliplatin (Xelox), or FOLFIRI if Oxaliplatin is not an option, is recommended for the first-line treatment of metastatic colorectal cancer only when all of the following criteria are met:

- The primary colorectal tumour has been resected or is potentially operable.
- The metastatic disease is confined to the liver and is currently unresectable.
- The patient is fit enough to undergo surgery to resect the primary colorectal tumour and to undergo liver surgery if the metastases become resectable after treatment with cetuximab.

Cetuximab treatment should be for no more than 16 weeks. At 16 weeks, treatment with Cetuximab should stop and the patient should be assessed for resection of liver metastases. The patient should be discussed half way through systemic treatment at the HPB meeting, after 6/12 (FOLFOX) or 4/8 Xelox cycles +/- Cetuximab to assess therapy progress and timely management by surgical team