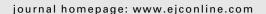


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#### **Review**

# Does chemotherapy prior to liver resection increase the potential for cure in patients with metastatic colorectal cancer? A report from the European Colorectal Metastases Treatment Group

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#### ARTICLE INFO

Article history: Received 21 May 2007 Received in revised form 12 July 2007

#### ABSTRACT

Liver resection offers the only chance of cure for patients with advanced colorectal cancer (CRC). Typically, the 5-year survival rates following liver resection range from 25% to 40%. Unfortunately, approximately 85% of patients with stage IV CRC have liver disease which is considered unresectable at presentation. However, the rapid expansion in the use of improved combination therapy regimens has increased the percentage of patients eligible

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Accepted 18 July 2007 Available online 4 September 2007

Keywords:
Colorectal cancer
5-Fluorouracil
Irinotecan
Oxaliplatin
Targeted agents
Liver resection
Liver metastases
Neoadjuvant
Perioperative chemotherapy
Unresectable

for potentially curative surgery. Despite this, the selection criteria for patients potentially suitable for resection are not well documented and patient management by multidisciplinary teams, although essential, is still evolving. The goal of the European Colorectal Metastases Treatment Group is to establish pan-European guidelines for the treatment of patients with CRC liver metastases that can be adopted more widely by established treatment centres and to develop more accurate staging systems and evaluation criteria.

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#### 1. Introduction

Despite the recent advances in first-line chemotherapy strategies for the treatment of patients with advanced colorectal cancer (CRC), <sup>1–5</sup> liver resection offers the only chance of cure for patients with colorectal liver metastases. <sup>6</sup> Until recently, the 5-year survival rates following liver resection typically ranged between 25% and 40% compared with between 0% and 5% for patients from the same institute who did not undergo liver resection. <sup>6–12</sup> These are consistent with the 5-year survival rates reported for most large series where liver resection has been performed. <sup>13–16</sup> The major challenge however comes from the fact that approximately 85% of patients with stage IV CRC, referred to specialist centres, have metastatic liver disease which is considered to be unresectable at presentation <sup>17</sup> (see Fig. 1).

Over the last 5 years there has been the recognition that preoperative, neoadjuvant, combination chemotherapy regimens, namely, 5-fluorouracil/folinic acid (5-FU/FA) in combination with either irinotecan or oxaliplatin, can facilitate the downsizing of colorectal liver metastases and render initially unresectable metastases resectable, 15,17-20 and that the

addition of targeted therapies<sup>21-26</sup> and a third cytotoxic to these standard combination therapy regimens<sup>27–30</sup> might render them even more effective in this clinical setting (Table 1). Over the same time period, advances in surgical techniques have led to changes in the criteria for resectability. Today, the requirement for the remaining liver remnant to be equivalent to 30% of the original liver volume is considered to be the most critical factor. 31 Even the presence of disease outside the liver no longer automatically excludes surgery provided that it is also resectable. 32 As a consequence, the percentage of patients eligible for potentially curative liver resection is increasing. The published resection rates, however, are very much biased towards specialist treatment centres. The goal of the European Colorectal Metastases Treatment Group (ECMTG) has been to advocate a multidisciplinary treatment approach to patients with metastatic colorectal disease, confined principally to the liver, which can be adopted by all treatment centres. The first manuscript of the ECMTG focussing on current treatment strategies and on criteria for resection was published in the Eur J Cancer in 2006.  $^{31}$  The intention of this expert group is to increase the number of patients who achieve long-term survival by increasing the number of

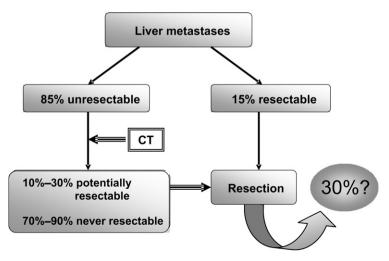


Fig. 1 - Resectability of colorectal liver metastases in 2006.

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