

## LETTER TO THE EDITOR

**Laparoscopic and open liver resection for colorectal metastases: different indications?**

We have read the paper by Welsh *et al.* with great interest.<sup>1</sup>

The authors addressed possible bias of non-randomized comparison of laparoscopic and open liver resection for colorectal metastases and hypothesized that patients selected for laparoscopic surgery are expected to have a better outcome, such as shorter operative time, less blood loss, better achieved free-margin rate and survival.

However, an earlier excellent paper from this group suggested the use of a multifactorial 30-grade scoring system [Basingstoke Predictive Index (BPI)] for colorectal metastases.<sup>2</sup> In a very short time, BPI has received wide spread application and acceptance as a reliable and effective tool to score patients referred for surgery for colorectal liver metastases with regards to their survival prognosis. One of its strong points was an opportunity for both pre- and post-operative calculation of BPI. We also used this scoring system in our recently published study in which we analysed survival of patients with colorectal liver metastases after laparoscopic liver resection. We noticed that actuarial survival of patients was higher than one would have expected from the BPI.<sup>3</sup>

It is a somewhat surprising fact that the authors did not apply their own scoring system to grade patients potentially suited to either laparoscopic or open liver resection. The criteria used to define those patients suited to laparoscopic surgery looks to be biased by personal opinion and does not reflect the current literature. The criteria to identify lesions suitable for laparoscopic resection in this study were partly defined by literature review of five articles, including one from our centre. Two of the studies mainly addressed resections for HCC and other non-colorectal metastatic liver lesions whereas the other two studies were published more than 5 years ago. In our former study, we concluded that 'tumours localized peripherally in the left lateral segments of the liver or in segments IV–VI seem to be best suited for laparoscopic resection' but this statement did not imply that all other lesions were unsuitable.<sup>4</sup> Based on the criteria used in the present study, only 23% of patients were suitable for laparoscopic approach. At present, in our institution about half of the patients are currently operated using a laparoscopic approach, a situation which also reflects that of several other hepatobiliary centres practicing advanced laparoscopy.<sup>5,6</sup> We argue that the indication for laparoscopic liver resection in centres with high technical expertise in laparoscopic hepatobiliary surgery, is the same as for open liver resections with only a few exceptions. The indications also include isolated

resections of segments 4a, 7 and 8, as well as resections of tumours over 6 cm in diameter, which were defined as not suitable for laparoscopy by the authors. Such resections have been shown to be feasible and safe at application of laparoscopic techniques.<sup>7</sup> We also argue that bilobar lesions requiring multiple resections are also well suited to laparoscopic surgery and in our recently published series, one-fifth of the laparoscopic liver resections were represented by multiple concomitant resections.<sup>8</sup> We would question the conclusion regarding bias as a result of possible selection of 'better' patients for laparoscopic liver resection and this cannot nowadays be applied routinely to specialized hepatobiliary centres practicing advanced laparoscopy.

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