

## Surgical Outcomes after Microscopic Incomplete Resection (R1) of Colorectal Liver Metastases in the Era of Aggressive Surgical Approach

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### Abstract

A  $\geq 1$ -mm margin is standard for resection of colorectal liver metastases (CRLM). However, microscopic incomplete resection (R1) is not rare because aggressive surgical resection has been attempted in multiple and bilobar CLM. In this study, we analyzed surgical outcomes after R1 resection of CRLM. From 2005 to 2018, 371 consecutive patients undergoing liver resection for CRLM were included. R1 resection was defined to have zero tumor free margin at the pathologic report. All patients were divided into R0 (tumor free margin more than 0mm) and R1 group. Recurrence pattern, disease-free survival (DFS) and overall survival (OS) were analyzed between the two groups. A total of 371 patients included in the study, 3 patients were excluded as they were R2 liver resection. Among them, R1 resection was found in 42 (11.3%) patients. The median age at diagnosis was 59 years (range, 22 to 86). There were 246 (33.7%) men and 125 women (66.3%). The incidence of intrahepatic recurrence was not significantly different between R0 and R1 resection. Similarly, there was no significant difference in terms of surgical margin recurrences between patients with R0 and R1 resections (42% [35/84] vs 35% [6/17], respectively,  $P = 0.788$ ). When comparing R0 and R1 resection, the 1-, 3-, and 5-year DFS and OS rates were not statistically significant even after neoadjuvant chemotherapy. R1 resection showed similar marginal recurrence rate and comparable DFS and OS compared to R0 resection. R1 resection should be part of the modern multidisciplinary, aggressive approach to CRLM.

### Biography:

Essam Dhafer Alhothaifi has completed his MSc in Ophthalmology from Cairo University in 1983. He was a Fellow at Hugonier Center, Lyon University, France in 1984. He has completed his MD in Ophthalmology from Cairo University in 1992. He has published more than 20 articles in different scientific journals. He is the former Head of Pediatric Ophthalmology Unit at Research Institute of Ophthalmology, Cairo, Egypt. He has been an Editorial Board member at EC Ophthalmology Journal. He is the Chairman of the Board and the Head of Pediatric Ophthalmology Department at Al Ain Eye Center, Cairo, Egypt (Private Sector). He is also a Visitor Consultant at Dar al SHIFA Hospital, Kuwait city since 15 years.

