

## 2<sup>ND</sup> WORLD CONGRESS OF GASTROENTEROLOGY & DIGESTIVE DISEASES



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### **Liver-first approach to the treatment of patients with synchronous colorectal liver metastases: a systematic review and meta-analysis**

#### **Abstract:**

**Objective:** The optimal approach to the treatment of colorectal carcinoma and synchronous liver metastases remains controversial. The objective of this review was to analyze the outcomes of adopting the liver-first approach for the treatment of patients with colorectal cancer with synchronous hepatic metastases who initially underwent systemic chemotherapy and/or resection of the metastatic lesions and primary colorectal carcinoma.

**Methods:** This review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines. The MEDLINE, EMBASE, LILACS, and Cochrane Central Register of Controlled Trials databases were searched for the identification and retrieval of eligible studies. Studies that included details of using the liver-first approach for the treatment of synchronous liver metastases of colorectal cancer and its outcomes, including the patients' survival data, were included. Proportional meta-analysis was performed using the random-effects restricted maximum likelihood method to summarize the three- and five-year overall survival and recurrence rates of the patients.

**Results:** Eight hundred and fifty-five articles describing the results of studies on the liver-first approach were identified. Three independent reviewers screened the titles and abstracts of the articles and excluded 750 articles. Thereafter, 29 retrospective and comparative studies that met the inclusion criteria were included. No randomized controlled trials were identified in the database search.

**Conclusion:** Neoadjuvant treatment with systemic chemotherapy for hepatic metastasis can prepare the patient for resection of liver metastases, offering the opportunity for potentially curative treatment of synchronous hepatic metastases initially considered unresectable. The decision regarding the resection of primary colorectal carcinoma and liver metastases should be based on individualized patient response. Prospero database registration ID: CRD42022337047 ([www.crd.york.ac.uk/prospero](http://www.crd.york.ac.uk/prospero)).

**Keywords:** Colorectal neoplasms; Neoplasm metastasis; Liver neoplasms; Liver surgery; Hepatectomy

**Biography:** Bruno Mirandola Bulisani, MD, PhD, is a Brazilian surgeon specializing in Minimally Invasive and Robotic Digestive Surgery. He holds a PhD in Health Sciences from Faculdade de Medicina do ABC (2023), with research focused on laparoscopic and robotic surgery. A member of SOBRACIL (Brazilian Society of Minimally Invasive Surgery), he has published in several international journals, with expertise in colorectal liver metastases and rare pelvic tumors. Currently a professor at USCS, he trains residents and pioneers robotic techniques, having presented at international congresses. Certified in robotic surgery by IDOR, he combines clinical innovation with academic leadership.