

510P Targeted therapies in conversion therapy in mCRC: A systematic review and meta-analysisB. Xing¹, B. Cui², Z. Gu³, H. Peng⁴

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Background: Chemotherapy (CT) plays a vital role as conversion treatment for initially unresectable or borderline resectable colorectal cancer (CRC). Targeted therapies are recommended with CT for conversion therapy; however, their role in conversion of initially unresectable tumours has not been elucidated. This meta-analysis evaluated the role of targeted therapies for conversion aimed at R0 resection in KRAS WT mCRC.

Methods: We conducted a literature search for randomized controlled trials (RCTs) in PubMed, Embase and Cochrane library evaluating the role of anti EGFR and anti VEGF as conversion therapies. A comparison was performed for anti-EGFR + CT vs. anti-VEGF + CT (Gp. A) and anti-EGFR + CT vs. CT (Gp. B). R0 resection rate and objective response rate (ORR) were the primary outcomes; with overall survival (OS), progression free survival (PFS) and safety evaluated as the secondary outcomes. Primary outcomes and safety were presented as relative risk (RR) and 95% confidence interval (CI), whereas survival was presented as hazard ratio (HR) and 95%CI.

Results: We identified 8 RCTs from the potential 81 studies. In Gp. A, a fixed effects model was used for analysis; and showed that although non-significant, anti EGFR + CT had better R0 resection rate (RR 1.44, 95% CI 0.91,2.27; $p = 0.1156$; $I^2 = 0\%$) and ORR (RR 1.05, 95% CI 0.88, 1.24; $p = 0.6039$; $I^2 = 0\%$) compared with anti VEGF + CT. OS with anti EGFR + CT was significantly longer than anti VEGF + CT (HR: 0.64; CI 0.47, 0.86; $p = 0.0036$; $I^2 = 0\%$); however, PFS was numerically better in anti EGFR + CT. Compared with CT alone, anti EGFR + CT resulted in significantly higher R0 resection rate (RR 1.85, 95% CI 1.15,2.98; $p = 0.0107$; $I^2 = 57.16\%$) and ORR (RR 1.19, 95% CI 1.11, 1.28; $p < 0.0001$; $I^2 = 0\%$). In Gp. B, only PFS was significantly longer with anti EGFR + CT vs. CT (HR: 0.85; 95% CI 0.74, 0.98; $p = 0.0015$; $I^2 = 45.60\%$), and not OS. Safety evaluation showed anti EGFR + CT with significantly greater adverse events than CT alone (RR: 1.26; 95% CI: 1.18, 1.35; $p < 0.0001$).

Conclusions: In conclusion, anti EGFR + CT was an effective conversion therapy compared with anti VEGF + CT and CT in patients with initially unresectable mCRC; however, frequency of AEs was more with targeted therapy.

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