

Quality of life in patients with liver metastases from colorectal cancer treated with first-line selective internal radiotherapy (SIRT): results from the FOXFIRE prospective randomized studies

Background

Quality of life (QoL) in patients with colorectal cancer and liver metastases treated with selective internal radiotherapy (SIRT) using Yttrium-90 resin microspheres combined with FOLFOX (standard chemotherapy) has not been compared to FOLFOX alone. We report QoL results from a prospectively pooled analysis of 3 multicentre randomized trials: FOXFIRE, FOXFIRE-Global and SIRFLOX.

Methods

Patients were randomized to FOLFOX or FOLFOX+SIRT in 14 countries. Second-line therapy was permitted upon disease progression. EORTC QLQ-C30 and EuroQoL EQ-5D (3 level) questionnaires were given to all patients at baseline, 2-3, 6 and 12 months from starting treatment and yearly thereafter, and at disease progression. We compared QoL scores between arms at each timepoint, calculating mean differences adjusted for baseline scores, using a 5% significance level. No missing data imputation was performed.

Results

1103 patients were randomised overall. Questionnaire response rates ranged from 92% (1010/1103) at baseline to 33% (163/493) at 24 months. Patients randomised to SIRT showed significantly ($p<0.05$) worse scores on 3 of 6 QLQ-C30 functioning scales and 3 of 9 symptom scales (fatigue, nausea and vomiting, appetite loss) at 4-8 weeks after treatment (2-3 months from baseline). SIRT patients had significantly better functioning scores on 3 of 6 scales at disease progression, and significantly less dyspnoea or constipation. Almost no other QLQ-C30 scales showed significant differences at 6, 12 or 24 months. The EQ-5D showed a statistically significant decrement of 0.02 in patients in the SIRT group 2-3 months from baseline, but no differences at other timepoints.

Conclusions

This analysis has shown that QoL is slightly impaired in functioning and symptom domains 4-8 weeks after treatment with SIRT+FOLFOX compared with FOLFOX alone, but slightly better when measured at disease progression. These differences were consistent between the QLQ-C30 and EQ-5D instruments. The differences detected were not large enough to be considered clinically significant.

Authorship

Alastair M Gray, Jane Wolstenholme, Francesco Fusco, Ian Chau, Luise Dunham, Sharon Love, Anne Roberts, Joanna Moschandreas, Pradeep S Virdee, Val Lewington, Gregory Wilson, Paul Tait, Nasir Khan, David Berry, Andrew Wotherspoon, Bruno Morgan, Harpreet Wasan, Guy van Hazel, Peter Gibbs, Ricky A Sharma