

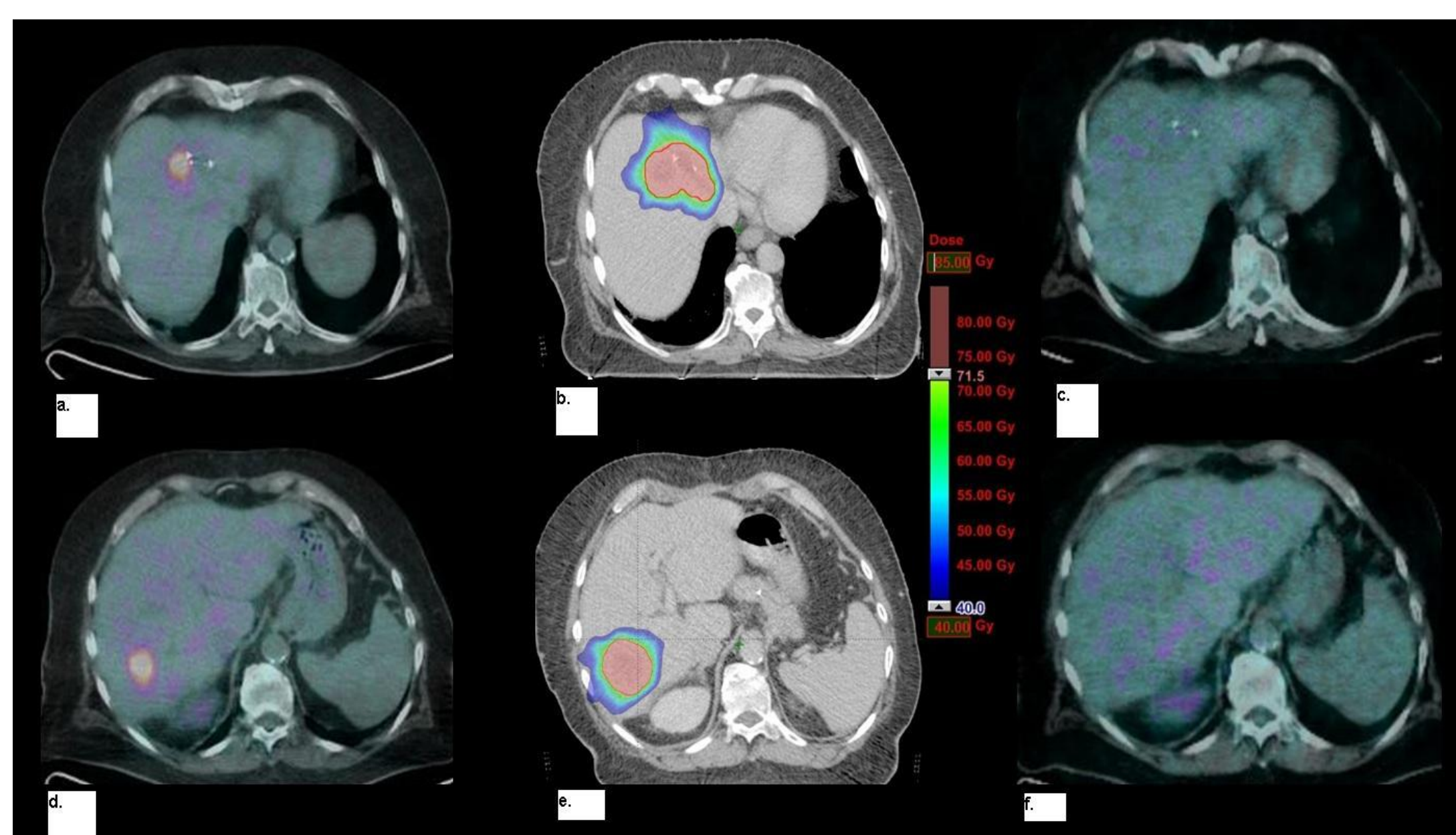
Stereotactic Body Radiation Therapy for patients with inoperable liver metastases from colorectal cancer: final results of a phase II trial.

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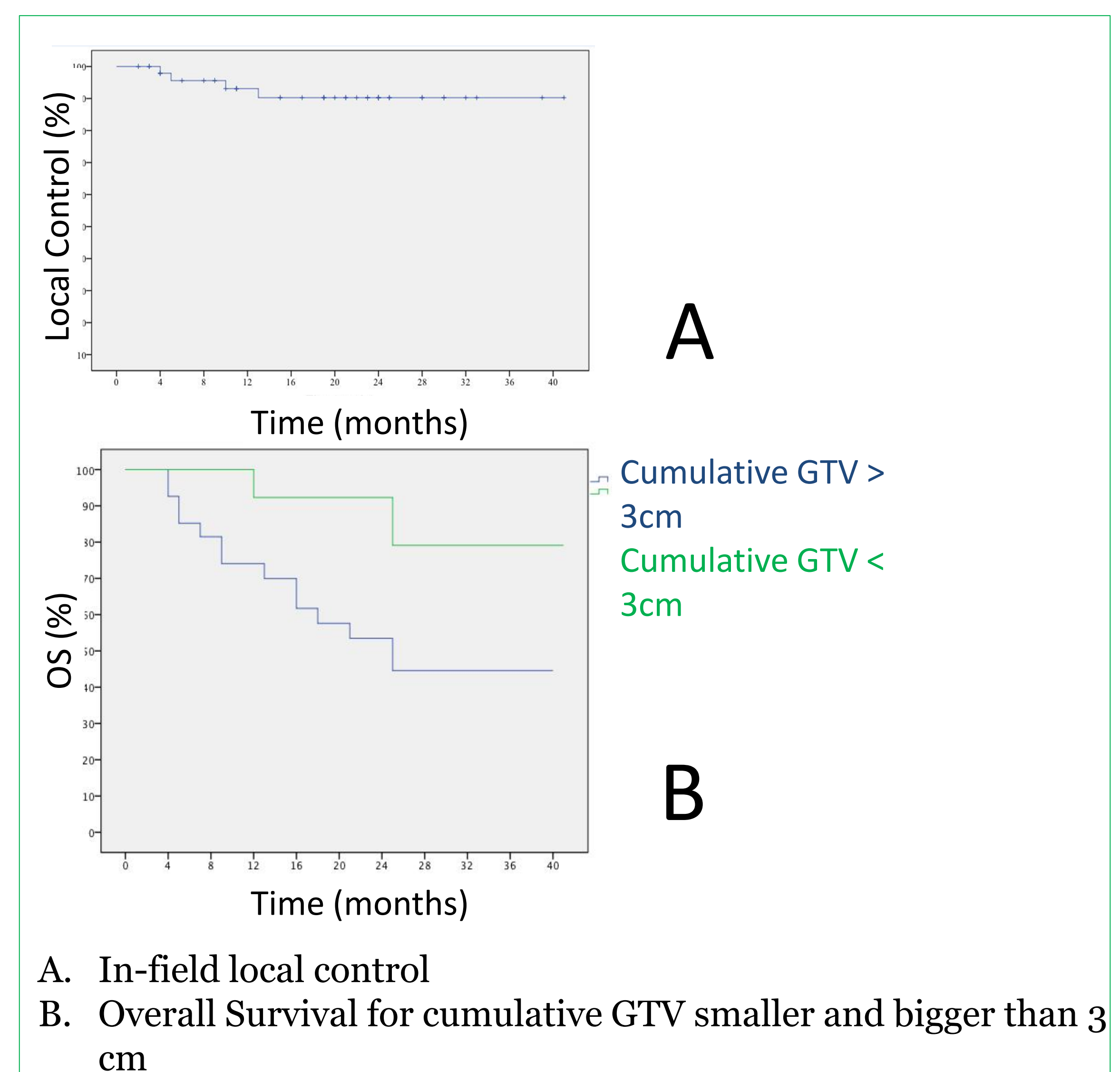
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Introduction To evaluate the feasibility and efficacy of Stereotactic Body Radiation Therapy (SBRT) in the treatment of colorectal liver metastases.

Materials & Methods Forty-two patients with inoperable colorectal liver metastases not amenable to radiofrequency ablation (RFA), were treated with SBRT for a total number of 52 lesions. All patients received a total dose of 75Gy in 3 consecutive fractions. Mean size of the lesions was 3.5cm (range 1.1–5.4). Toxicity was classified according to the Common Toxicity Criteria (CTC) version 3.0.



Patient treated with SABR for two liver colorectal metastases. (a.-d.) Positron emission tomography (PET) pretreatment image showing the lesions, defined by metal surgical clips. (b.-e.) Visualization of dose distribution on the planning target volume. (c.-f.) PET-CT image at 3 months after radiation therapy, showing complete metabolic response.



Results Median follow-up was 24 (range 4–47) months. The progression in field was observed in 5 lesions. Twenty-four months actuarial local control (LC) rate was 91%. Median overall survival (OS) was 29.2±3.7 months. Actuarial OS rate at 24 months was 65%. Median progression-free survival was 12.0±4.2 months; 24 months actuarial rate was 35%. No patients experienced radiation-induced liver disease (RILD) or grade >3 toxicity.

Conclusion SBRT represents a feasible alternative for the treatment of colorectal liver metastases not amenable to surgery or other ablative treatments in selected patients, showing optimal local control and promising survival rate.