

Pilot study of stereotactic body radiotherapy for huge hepatocellular carcinoma unsuitable for other therapies

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ABSTRACT

Aims. To determine the feasibility and efficacy of stereotactic body radiotherapy (SBRT) for huge hepatocellular carcinoma unsuitable for other therapies.

Methods. Six patients with very large hepatocellular carcinomas (>10 cm) unsuitable for surgical resection or that failed to respond to transcatheter arterial chemoembolization (TACE) were treated by SBRT. Doses ranged from 32 Gy to 40 Gy in four fractions. Survival, response, and toxicities were evaluated.

Results. After a median follow-up of 25.9 months (range 8.1-56 months), three patients had died and three were alive. Overall, treatment was well tolerated and no dose-limiting toxicity or radiation-induced liver disease was observed. The median survival was 10 months (range 3-56 months) and the median progression-free duration was 6 months (range, 2-21 months). Partial response was achieved by four patients, stable disease by one, and one patient had disease progression. One patient with a partial response who underwent lobectomy after SBRT was alive 56 months post-SBRT.

Conclusion. This study suggests that SBRT can be delivered safely at 32-40 Gy in four fractions to huge hepatocellular carcinoma. Furthermore, combinations of SBRT with other modalities such as surgery or TACE might prolong survival. **Free full text available at www.tumorionline.it**

Key words: stereotactic body radiation therapy, huge hepatocellular carcinoma, transcatheter arterial chemoembolization.

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