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Total Tumor Volume As A Prognostic Value For Survival Following Liver Resection In Patients With Hepatocellular Carcinoma. Retrospective Cohort Study

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INTRODUCTION

Total tumor volume (TTV) can provide a simplified parameter in describing the tumor burden by incorporating the size and number of tumor nodules into one continuous variable.
The prognosis of patients with hepatocellular carcinoma (HCC)
depends mainly on the functional reserve of the liver and tumor burden that is appraised by the size and number of the tumor nodules. The success of resection depends on the ability to achieve resection with
tumor-free margins while leaving behind an adequate

AIM

The aim of the study was to evaluate the prognostic value of TTV in resection of (HCC).

METHOD

Patients who underwent liver resection for HCC between 2012 and 2017 were retrospectively analyzed.
Patients were divided into a group with TTV ≤65.5 cm^3 (which nearly equal to a single tumor with a
diameter of 5 cm), and another group with TTV > 65.5 cm^3.

RESULTS

Two hundred and four patients were included in this study (108 patients had TTV ≤ 65.5cm3, and 96 patients had TTV > 65.5 cm^3). Ninety patients (44.1%) were within Milan and 114 patients (55.9%) were beyond Milan criteria. Eighteen patients (15.8%) of beyond Milan criteria had TTV ≤ 65.5 cm^3, with a median survival of 32 months which is comparable to a median survival of patients with TTV<65.5 cm^3 (38 months, P = 0.38). TTV-based Cancer of Liver Italian Program (CLIP) score gained the highest value of likelihood ratio 114.7 and the highest Concordance-index 0.73 among other prognostic scoring and staging systems. In multivariate
analysis, independent risk factors for diminished survival were serum AFP level>400 ng/ml, TTV>65.5 cm^3, microvascular invasion, postoperative decompensation (all P values < 0.05).

CONCLUSIONS

TTV is a feasible prognostic measure to describe the tumor burden in patients with HCC. TTV-CLIP
score may provide good prognostic value for resection of HCC than other staging systems.

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CONTACT INFORMATION

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