

Treatment of asymptomatic hepatocellular carcinoma offers survival advantages

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Background: Treatment of occult disease should offer survival advantages compared to the treatment of symptomatic disease, in order to proclaim benefit of screening asymptomatic individuals, yet, information on this issue is scarce in hepatocellular carcinoma (HCC) screening. We compared patient survival between those who were detected by screening and those who had symptom that led to the diagnosis. **Methods:** A total of 3,353 treatment-naïve, consecutive, newly diagnosed HCC patients [age: 57.9 ± 10.3 , male: 2,689 (80.2%), hepatitis B virus: 2,555 (76.2%)], diagnosed between 2010 and 2013 at single center were analyzed. Data on the mode of HCC diagnosis, which was prospectively collected at the time of HCC diagnosis, were used to group patients into screen-detected or symptom-driven cases. **Results:** Overall, 643 (19.2%) patients were symptom-detected cases. Most frequent symptom that lead to evaluation was abdominal discomfort/pain (382 patients, 59.4%) followed by general weakness/fatigue (53 patients, 8.2%). During a median 3.6 years of follow-up (range: 0.1-7.5 years), mortality was observed in 1,317 (39.3%) patients. The survival was significantly better for screen-detected cases than symptom-driven cases (71.2% vs. 30.4% at 3-years, $p < 0.001$). Tumor stage at diagnosis was more advanced for symptom-driven cases (mUICC stage IV: 39.8% vs. 14.2% for symptom vs. screen, $p < 0.001$). When stratified by mUICC stage, screen-detected patients showed significantly better survival than symptom-detected cases in stage IV (22.4% vs. 8.5% at 3 years, $p < 0.001$), stage III (57.6% vs. 28.3% at 3 years, $p < 0.001$) and stage II (84.4% vs. 54.3% at 3 years, $p < 0.001$). There was no significant difference in survival for those diagnosed at stage I (91.4% vs. 90.0% at 3-years, $p = 0.60$), yet, only 32 of 643 symptom-driven cases (5%) were diagnosed at stage I and presenting symptoms were nonspecific. **Conclusion:** Diagnosis of HCC by screening for asymptomatic individuals provided survival advantage over symptom-driven diagnosis. No specific symptoms were found that could help identify HCC at early stage. HCC screening qualifies criteria of cancer screening in terms of screening asymptomatic individuals.

Effective local tumor control in both small- and medium- sized HCC with combined TACE and SBRT

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Background: We evaluated the efficacy of combination with stereotactic body radiotherapy (SBRT) for hepatocellular carcinoma (HCC) patients who treated with transarterial chemoembolization (TACE). **Methods:** We retrospectively reviewed 75 patients with HCC of ≤ 5 cm who underwent the combined SBRT with TACE from August 2011 to December 2016 in three institutions. We evaluated local control (LC) rate, overall survival (OS) and recurrence free survival (RFS) after combined the two treatments. Outcomes in patients with small (< 3 cm)-sized HCC ($n = 60$) were compared to with outcomes in patients with medium (3-5 cm)-sized HCC ($n = 15$). Radiation induced liver disease (RILD) is defined as worsening Child Pugh score by two points. **Results:** The median duration of follow up after SBRT with TACE is 22.0 months (range, 2-83 months). Median size of tumors is 2.3 cm (range: 1~4.8 cm). Median 58.5 Gy (range, 40-60 Gy) in 3-5 fractions was prescribed. 1-,2-,3-year LC rates for all patients are 91.5%, 89.6% and 89.6% respectively. One year LC rate remarks no difference between small sized HCC and medium-sized HCC (91.2% vs 93.3%, log-rank $p = 0.688$). 1-,2-,3-year RFS are 64.7%, 49.4% and 35.2%. 1-,3-,5-year OS are 84.4%, 58.6% and 30.3% respectively. RILD is observed in 9 (12.0%) patients. RILD shows no difference between small- and medium-sized HCC (10.0% vs 20.0%, $p = 0.286$). **Conclusions:** Combination SBRT with TACE can be more effective in small and medium sized HCC patients, with good local tumor control and low treatment-related toxicity.

Figure 1. local control and recurrence free survival.

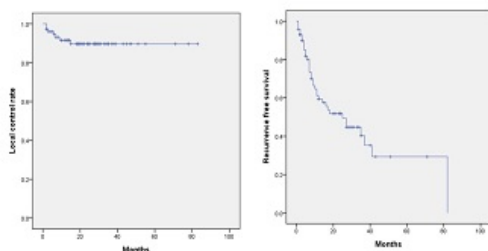


Figure 2. Local control rate according to tumor size.

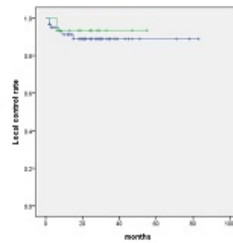


Figure 3. overall survival.

