

## **MULTIMODALITY THERAPY OF HEPATOCELLULAR CARCINOMA**

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**BACKGROUND/AIMS:** Hepatocellular carcinoma (HCC) is the leading cause of cancer death in Taiwan. In adult HCC patients, about 50-70% are HBsAg (+), 20-40% are Anti-HCV (+), 2-4% are alcohol-related and 4-5% are both HBsAg (-) and Anti-HCV (-). The purpose of this study was to evaluate the survival rate of multimodality therapy consisting of surgical resection (SR), transcatheter arterial embolization (TAE), percutaneous ethanol injection (PEI), hepatic artery infusion (HAI), radiotherapy (RT) and combination therapy.

**METHODS:** From Jan. 1990 to Mar. 2004, there were 568 cases of HCC in Taipei Municipal Jen-Ai Hospital. The methods of treatment included: SR, TAE, PEI, HAI, RT and combination therapy.

**RESULTS:** The 1, 3 and 5-year cumulative survival rates of HCC patients were 92%, 77% and 43%, respectively, for surgical resection and 66%, 26% and 17% for TAE, respectively. The 1, 3 and 5-year cumulative survival rate of HCC patients were 97%, 79% and 51% for PEI (tumor size smaller than 5 cm), respectively, and 88%, 65% and 47% for TAE + PEI (tumor size smaller than 13 cm), respectively. The 1-year survival rate of HCC patients who underwent RT alone was 12%. However, if combined RT + TAE + PEI are used, the 1-year survival rate was up to 41%. The survival rate of patients receiving HAI alone was poor in our series.

**DISCUSSION/CONCLUSIONS:** The long-term prognosis of patients who underwent surgical resection of HCC were equivalent to PEI in smaller tumors and TAE + PEI in larger tumors. TAE + PEI was better than TAE alone. Combination therapy of SR, TAE, PEI, RFA, PMCT, RT, C/T and HAI will play an important role in the future treatment of HCC.

**Key words:** HCC, multimodality therapy