

## **Effect of comprehensive intervention led by nursing staff on drug compliance in patients with hepatitis B virus associated hepatocellular carcinoma after TACE**

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**Abstract:** Hepatitis B virus infection is a leading cause to hepatocellular carcinoma in China, and transcatheter arterial chemoembolization(TACE) is a dominant therapeutic approach to this disease. To prolong the survival time, hepatitis B virus associated HCC patients treated with TACE should be fully obedient to antiviral treatment (nucleotide analogue drug treatment). According to literature reports, however, drug compliance among liver cancer patients is far from being satisfying. The objective of the current study is to investigate the effects of nurse-led comprehensive intervention on drug compliance of hepatitis B virus associated hepatocellular carcinoma (HCC) patients after TACE treatment. In current study, 96 cases of patients with hepatitis B virus associated HCC who received TACE and nucleotide analogue drug treatment were selected in one three-level hospital using randomly. Patients were received nurse-led comprehensive intervention after consent informed as follows: 1. Serum HBV-DNA of all patients enrolled in this study were detected on admitted and the drug compliance of patients for 1 month for nucleotide analogue drug were evaluated by using a self-designed scale. 2. Patients received not only routine drug education of medical staff, but also got drug booklet, drug diary with alarm clock, drug diary, contact card of nurse and doctor before discharge. Furthermore, all patients and their relatives received lectures of drug related education by nurse and doctor. 3. Several kinds of communications for drug intake such as face to face communication between medical staff and patients and their relatives, telephone, SMS, wechat at 7 days, 14 days, 1 month, 2 month and 3 month after discharge and patients and their relatives were reminded for drug taking continued when finishing the current drug. 4. Serum HBV-DNA were tested 3-months after discharge and drug compliance of patients was evaluated again by nursing staff. The results of current study were as follows: 3.1% of patients (3/96) withdraw from current study because of exacerbations. The average scores of drug compliance of patients after intervention were  $93.67 \pm 6.046$ , which showed higher scores than pre-intervention ( $82.04 \pm 10.024$ ),  $P < 0.05$ . The rates of patients with higher drug compliance (97.8%) were more than pre-intervention (62.4%),  $P < 0.05$ . The average value of serum HBV-DNA of patients after intervention were less than pre-intervention,  $P < 0.05$ . Furthermore, patients with normal range of serum HBV-DNA were higher than pre-intervention,  $P < 0.05$ . In conclusion, comprehensive intervention led by nursing staff could improve drug compliance of hepatitis B virus associated HCC patients after TACE, and improved HBV-DNA control effectively.

**Key words:** comprehensive intervention; hepatitis B virus; hepatocellular carcinoma; TACE; drug compliance; HBV-DNA