

## Abstract

**Background** Hepatocellular carcinoma (HCC) is a common malignancy in Hong Kong, which is associated with symptomatic and progressive disease course. Little is known about the prevalence of psychiatric morbidity and the associated factors in HCC patients.

**Objectives** The primary objective of study is to determine the prevalence rate of psychiatric morbidity in patients with HCC. The secondary objectives include evaluation of clinical factors associated with psychiatric morbidity, and to study the use of Hospital Anxiety and Depression Scale (HADS) as screening tool for psychiatric morbidity in HCC patients.

**Methods** A study design of cross-sectional study is used. The study population includes Chinese patients who are diagnosed of HCC from one month to one year prior to the time of recruitment. All of the patients were sampled from the Joint Hepatoma Clinic of the Prince of Wales Hospital from June 2011 to May 2012, and the Liver and Gastroenterology clinic of the United Christian Hospital from July 2011 to May 2012. At the time of consent, patients' socio-demographic backgrounds and clinical characteristics were recorded. In addition, social support, mental adjustment to cancer and quality of life were measured using the Chinese version of the Medical Outcomes Study Social Support Survey (MOS-SSS-C), the Mini Mental Adjustment to Cancer scale (mini-MAC) and the European Organisation for Research and Treatment of Cancer Quality of Life Questionnaires (EORTC QLQ-C30), respectively. At the same time, HADS was administered. All patients were interviewed by a psychiatrist to make psychiatric diagnoses using a semi-structured interview, the Chinese-Bilingual Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Axis I, Patient Version (CB-SCID-I/P). Independent associated factors for psychiatric disorders were determined by

univariate and multivariate analyses, and the performance of HADS in screening for psychiatric morbidity was evaluated.

**Results** Total 126 subjects were recruited, and 26.2% of them had current psychiatric disorders. Adjustment disorders and major depressive disorders were the most common among psychiatric disorders with point prevalence of 13.5% and 9.5% respectively. Most of the patients (81.8%) with psychiatric diagnoses did not receive any psychiatric treatment. A history of psychiatric disorder, financial difficulty, lower role functioning, a higher symptom score of constipation (assessed with the EORTC QLQ-C30) and affectionate social support (assessed with the MOS-SSS-C) were independently associated with current psychiatric disorders. The HADS was effective in screening for these disorders, with optimal cut-off points of 10 for overall current psychiatric disorders (sensitivity 83.3% and specificity 70.8%), 16 for major depressive disorders (sensitivity 75% and specificity 86%) and 10 for adjustment disorders (sensitivity 82.4% and specificity 64.2%).

**Conclusion** Psychiatric disorders are not uncommon in HCC patients within the first year of the cancer diagnosis. A large proportion of them have not received psychiatric treatment suggesting that psychiatric morbidity is under-recognised by most clinicians. Psychiatric disorders are associated with a number of clinical factors; some of these factors may help alert clinicians about potential underlying psychiatric problems. The HADS is an effective screening instrument for psychiatric disorders in patients with HCC. A prospective study is indicated to validate the above findings and to study the long-term outcome of HCC patients with psychiatric morbidity.