## Fatigue patterns and correlates in male liver cancer patients receiving transcatheter hepatic arterial chemoembolization.

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Liver cancer is a leading cancer in Taiwan, especially in males. Transcatheter arterial chemoembolization (TACE) is a major treatment for these patients, but research examining their fatigue experiences is limited. The purposes of this longitudinal, correlational study were to identify (1) changes in fatigue, symptom distress, anxiety and depression in cancer patients across four time points during the first week of TACE treatment, and (2) factors predicting changes in fatigue across the four time points. Eligible male inpatients with liver cancer were recruited from a medical center in Taipei. Subjects (n=40) were assessed 1 day before (T1), and during days 2 (T2), 4 (T3) and 6 (T4) of TACE. Data were analyzed by descriptive statistics, Pearson's correlations, repeated measures analysis of variance (ANOVA) and the generalized estimating equation (GEE). Subjects had mild to moderate levels of fatigue that peaked at T2, and showed a decrease at T3 and T4 but were still slightly higher than at T1. The GEE analysis showed that greater symptom distress, anxiety and depression, higher Adriamycin dosage, longer duration of previous fatigue, and less education significantly predicted fatigue changes. The results indicate that the pattern of fatigue in TACE during the first week is similar to fatigue in patients receiving chemotherapy. The results also further indicate that fatigue is associated to several factors. The causal relationships between fatigue and these related factors should be examined. Interventions targeting these factors should also be tested in future studies.