

**O3 CAFFEINE CLEARANCE IN HEPATOCELLULAR CARCINOMA PATIENTS PRE AND POST TREATMENT WITH TRANSCATHETER OILY CHEMOEMBOLIZATION**

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**ABSTRACT**

The purpose of this study was to evaluate caffeine clearance, a quantitative liver function assessment, in patients with hepatocellular carcinoma (HCC). Liver function test both conventional test and caffeine clearance were evaluated in twelve patients pre and post treatment with Transcatheter Oily Chemoembolization (TOCE). Each patient took a 3.5 mg/kg single oral dose of caffeine solution at pre TOCE treatment and 1 day and 5 weeks post treatment. Blood samples were subsequently collected at 0.5, 1.5, 3, 5, 10 and 24 hours after caffeine administration. Clearance, Vd and half life were determined by the pattern of pharmacokinetic study. It was found that caffeine clearance decreased ( $P = 0.06$ ) and decreased significantly ( $P = 0.03$ ) at 1 day and 5 weeks after TOCE treatment, respectively. No significant change ( $P > 0.05$ ) in alanine transaminase (AST) and aspartate transaminase (ALT) were observed neither on 1 day nor 5 weeks post treatment. It can be concluded that post TOCE treatment patients have impaired hepatic metabolic activity demonstrated by measuring caffeine clearance. Liver function assessment in HCC patients with caffeine clearance looks more sensitive than conventional liver function test.

**Key words:** caffeine clearance, hepatocellular carcinoma, transcatheter oily chemoembolization