

Effect of ALTO, Herbal Extract on the Blood Ethanol Concentration and Clinical Effects of Ethanol in Human

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We evaluated the effect of ALTO, herbal extract, on the disposition of blood ethanol and acute alcoholic intoxication and hangover. Thirty minutes before the administration of ethanol 36.4g(12.5% alcohol 300ml), two single doses of placebo or ALTO 150ml were pretreated orally to 12 normal volunteers in a balanced, randomized crossover design.

Pretreatment of ALTO significantly lowered the blood ethanol concentration (BEC) with statistical significance compared to those of placebo($p=0.013$). $AUC_{0 \rightarrow 12hr}$, C_{max} , and T_{30} of BEC showed statistically significant difference between two pretreatments by ANOVA($p<0.05$) and were reduced $24.12 \pm 25.20\%$, $15.46 \pm 23.93\%$ and $16.73 \pm 24.50\%$ in the case of ALTO pretreatment, respectively. All parameters showed more than 20% differences between two pretreatment in the symmetrical 95% confidence interval. No statistically significant difference was identified between two pretreatments when we assessed the psychomotor performance, subjective and objective signs of hangover.

These results suggested that herbal extract ALTO seemed to decrease the blood ethanol concentration, though the effect of ALTO showed significant interindividual variation.