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KEY WORD : ALCOHOL LEVELS / INJURY : MOTORCYCLE

KEATKONGKRAI BUNNUM : ALCOHOL LEVELS DETECTED FROM BREATH AND MOTORCYCLE INJURY IN CHAWANG DISTRICT, NAKHON SI THAMMARAT. THESIS ADVISOR : CHAWEEWANG BUNSUYA, M.S.P.H.(Bios.), CHAMPUN SUNTIKUN, M.D., M.P.H. KOWIT WARAPONGSUTIKUN, M.D. JONKON PODANG, M.Sc.(PUBLIC HEALTH) 93 p. ISBN 974-589-346-3

The purpose of this case - control study determining the relationship between alcohol intake, as measured by alcohol levels detected from breath, and accidents among motorcyclists in Chawang District, Nakhon Si Thammarat Province. The cases were 250 motorcyclists who had accidents and were admitted to Chawang Crown Prince Hospital during 1 February to 31 May 1997. The controls were 250 motorcyclists without injury within the past 6 months. The alcohol levels in blood detected from breath were determined by Lion alcoholmeter SL-400 [UK]. The structured questionnaire was applied for interviewing from 1 February to 31 May 1997.

The results of this study demonstrated that the risk of injury among motorcyclists with alcohol levels in blood detected from breath of 1-30 mg% was not different from those with no alcohol ($\hat{OR} = 1.83$, 95% CI of OR = 0.64 - 5.25). The risk of injury among motorcyclists with alcohol levels in blood detected from breath of more than 30 mg% was 6.66 times that of those with no alcohol levels in blood ($\hat{OR} = 6.66$, 95% CI of OR = 3.19 - 13.91). Moreover, when controlled for personal factors as well as vehicle and environment factors, it was found that the motorcyclists with alcohol levels in blood detected from breath of 1-30 mg% had the risk of injury no different from those with no alcohol levels in blood ($\hat{OR} = 3.26$, 95% CI of OR = 0.96 - 11.03). However, the motorcyclists with alcohol levels in blood detected from breath of more than 30 mg% had the risk of injury 14.08 times as compared to those with no alcohol levels in blood ($\hat{OR} = 14.08$, 95% CI of OR = 6.03 - 32.89). To minimize the risk of injury among motorcyclist, it is suggested to change or improve the law to allow the alcohol levels in blood circulation of not more than 30 mg% among drivers, and to institute a campaign to stop driving after drinking.