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Title: Effect of khat (*catha edulis*) on bronchial asthma in Jimma University specialized hospital, adult chest clinic, Jimma, Ethiopia

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Body: Background:- Asthma is a chronic inflammatory disorder of the airways. About 300 million people worldwide were affected by asthma leading to approximately 250,000 deaths per year. The active chemical present in Khat could have a bronchodilator effect like that of catecholamine. The present study aims at determining the effect of khat chewing on bronchial asthma. Methods:- A comparative cross sectional study was conducted in JUSH Adult Chest Clinic on 170 asthmatic patients with a 1.4 to 1 ratio of non-chewer to chewer between November 2010 and January 2010. Interviewer administered questionnaire, patient history and pulmonary function test using Spirometer was used to collect the data. Result:- of 170 asthmatic patients, 72 were khat chewers and 98 were non chewers. Frequent asthmatic symptoms was seen on 23(31.9%) of chewers and 43(43.9%) of non chewer ($\chi^2=2.488$, $p=0.11$). A less frequent use of β_2 agonist was observed on 42(58.3%) of chewers and 53(54.1%) of non chewer patients ($\chi^2=12.678$, $p=0.12$). Less frequent night time awake and chewing status was found to be positively associated [AOD=2.633, CI(1.778,3.059)]. The mean predicted personal best of forced expiratory volume in one second (FEV₁%) for chewers and non chewer was 62% and 46% respectively while their PEF_R% was 40% and 26% respectively. Conclusion:- apart from psycho stimulating prosperities, khat has moderate potential benefit for the improvement of episodes of asthma attack. This study showed that chewer asthmatic patients had relatively better PEF_R and also relatively lesser recurrent night time awake due to asthmatic attack.