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Study of the respiratory and other disorders in rice millers following exposure to dusts of occupational origin.

MD (Family Medicine) - 1993

D 234 , D 324

The main objective of this study was to investigate the health effects following exposure to the dust of occupational origin in rice millers. This study was carried out in Divulapitiya in the Western Province of Sri Lanka where rice milling is the main industry. The sample was selected from among the rice millers within the study area by random methods. The control group consisted of workers from the same residential area who were not exposed to rice milling dust or other of occupational origin known to cause adverse effects. The control group was matched with the study group according to age, sex, ethnicity and socio-economic status and the two groups were almost similar in all respects. A comparative study of the prevalence of selected respiratory and other disorders was done in the two groups. The study consisted of an administered questionnaire, clinical examination, laboratory tests, chest x-rays and peak expiratory flow measurements taken during and after the work shifts. Of the respiratory disorders bronchial asthma was the predominant condition that affected rice millers. After commencing their present employment 21.5 of the rice millers developed bronchial asthma while only 8 percent of the controls developed it. Among those who gave a previous history of atopic symptoms, 53.6 of the rice millers had developed bronchial asthma at the time they were examined while 36.5 percent of those among the control group had it. Among those who smoked daily, the prevalence of bronchial asthma was significantly higher in the millers (25.8 than in those in the control group (14.1). It was also noted that 25.8 among the rice millers who smoked daily were asthmatics, whereas only 13.9 among the non-smoking rice millers were asthmatics. The prevalence of bronchial asthma increased with the duration of exposure to rice milling. Among the non-respiratory disorders the prevalence of purities and eye irritation after their present employment was significantly higher in rice millers, when compared with the control group. The adverse health effects were seen in the lungs, eyes and the skin of the rice millers. They were bronchial asthma in 21.5, dry cough over three in 9.1, eye irritation in 18 percent and purities in 50.