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Title: The effect of work on asthma in middle-aged men having asthma from youth

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Body: AIMS: We studied the effect of current workplace exposure on current asthma severity, asthma control and occurrence of exacerbations in a population of approximately 40-year old men having asthma since their youth. METHODS: We used Finnish Defence Force registers, 1986-1990, to select: (1) conscripts with asthma to represent a mild/moderate asthma group (n=485), (2) asthmatics who were exempted from military service to represent a relatively severe asthma group (n=393) and (3) a control group (n=1500) without asthma. A questionnaire consisting of validated questions on asthma and occupations was sent out in 2009 and current occupational exposure was estimated with asthma Job Exposure Matrix (JEM). Asthma severity was evaluated with the modified GINA guidelines and control with the Asthma Control Test. Logistic regression was used in risk factor analyses. A total of 54% of the men in asthma group 1, 44% of those in asthma group 2 and 44% of the controls answered. RESULTS: A total of 17.7% of the men in asthma group 1 and 40.5% of the subjects in asthma group 2 and had currently moderate or severe persistent asthma. Asthma was more often uncontrolled in asthma group 2 (28.0% vs. 15.1%, p=0.002) and exacerbations during last 12 months were more frequent (19.3% vs. 11.6%, p=0.0363). Being currently not-employed (OR 2.0, 95%Cl 1.0-4.0) and self-reported occupational exposure to abnormal temperatures (OR 1.7, 95%CI 1.0-3.0) associated with asthma exacerbations, while occupational exposure based on JEM was not related to current asthma status. CONCLUSION: Current workplace exposure seems to have only minor effect on asthma severity, control and exacerbations in 40-year old men having asthma since their youth.