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Title: Irritative respiratory symptoms and ventilatory function to workers exposed to man made mineral fibres

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Body: We conducted a case-control study of 43 subjects who use Man Made Mineral Fibres (MMMF) to isolate cookers: 25 male and 18 female, aged 29-55, average of exposure 17.7 ± 4.1 years and a matched control group. Clinical, respiratory, skin and eye symptoms were recorded by questionnaire, pulmonary functional tests (PFT); MMMF mean concentration in the workplace air was measured. Prevalence of chronic respiratory symptoms in exposed workers was insignificantly higher (32% vs. 21%). Significantly higher prevalence was found for irritative symptoms of the upper airways ($r=0.32$, $p<0.05$), itching eye ($r=0.35$, $p<0.05$) and cutaneous symptoms such as itching, erythema or urticarial reactions. Irritative anomalies of the upper airways in exposed workers were significantly associated with duration of exposure ($r=0.57$, $p<0.005$). A significant correlation between symptoms and PFT values was found in workers having more than 10 years exposure. Values of FVC, FEV1, FEV1/FVC and small airways indices in exposed workers were significantly lower ($r=0.42$, $p<0.01$). Small airways changes in exposed workers were strongly linked to duration of exposure ($r=0.37$, $p<0.05$) whereas relation of cutaneous symptoms and professional age was not significantly linked. We found that irritative ocular or tegumentary syndrome was more frequently revealed at the exposed subjects, especially in the first 10 years of activity. Our data suggest interactive influence of workplace exposure to MMF in development of irritative anomalies of the upper airways with predominantly smaller airways affecting.