

SUMMARY

Tea is a beverage, world famous for the inherent flavour and stimulant properties it possess. It's manufacture is a labour intensive process where the factory workers engaged in it are exposed to the hazard of inhalation of tea dust which is maximally generated during the sifting and packing of the manufactured black tea. There is evidence from the previous studies on blenders that those exposed to tea dust are at a higher risk of developing chronic respiratory symptoms with an associated decline in the ventilatory capacity. No such studies have been done in factory workers and therefore this preliminary survey was undertaken with the objectives of determining whether the factory workers are at risk of developing ventilatory impairment and if so the degree of impairment and how effective radiology will be in detecting such cases.

A total of fifty five male and female factory workers employed in the sifting room with a duration of 5 or more years of service were selected for cases, while a matched control group of 53 field workers were selected as controls.

The prevalence of chronic respiratory symptoms amongst the factory workers (56.4%) was significantly higher than that of the field workers (9.4%). There was a significant decline of the ventilatory capacity in relation to $FEF_{25-75\%}$ when compared with the controls. The proportion of workers with mild and severe ventilatory impairment with regard to $FEF_{25-75\%}$ were 37.74% and 24.53% respectively. The corresponding values for $FEV_{1.0}$ were 24.53% and 7.3% while that of FVC were 13.21% and 3.7% respectively. $FEF_{25-75\%}$ therefore appears to be the best indicator of ventilatory impairment. The use of chest X-rays were not sensitive enough to detect those with positive respiratory symptoms or ventilatory impairment.

Although the numbers concerned with this study are not large enough to be conclusive, it may be observed that the factory workers are at a higher risk of developing respiratory symptoms with an associated decline in the ventilatory capacity than that of the control group. Therefore it is essential that good occupational hygiene measures are practiced in order to reduce the inhaled dust concentrations coupled with pre-employment and regular medical examinations in order to detect those who are sensitive to tea dust. Those already disabled should be entitled for claims of compensation.