

Respiratory disorders in cement workers in Togo

Hinson Antoine Vikkey

University of Abomey-Calavi, Benin

Abstract:

Introduction: Cement Manufacturing Creates a dusty environment that constantly exposes workers. The aim of this study was to determine the extent of respiratory disturbances among cement workers in the city of Lomé in Togo.

Method: It was a cross-sectional study that recruited 74 cement workers. They were submitted to the British medical research council (BMRC) questionnaire and then to a spirometry with the Spirobank spirometer. Particulate matter measurements were made in the factory. The data was analyzed using Epi Info 3.5.4. As regards the analysis of the data, a descriptive analysis is first carried out by calculating the proportion and then by comparing the qualitative variables using the Pearson Khi-square test with a significance threshold of 0.05.

Results: The population was mostly male (97.3%) with an average age of 49.09 ± 10.12 years. 56.75% of workers had more than 15 years work seniority. The average dust level was $80\text{mg}/\text{m}^3$ with extremes of 9.6 and $268.9\text{mg}/\text{m}^3$ which was above the limit value : $5\text{mg}/\text{m}^3$. Cough was present in 10.84% of workers, rhinitis in 9.45% and

dyspnea in 5.4%. 31.08% of workers had a spirometric abnormality with a predominance of syndrom of small airways (43.47% of abnormalities). Only seniority over 15 years was associated with the occurrence of cough: $\text{OR}=5.59$ IC [1.49, 21.02].

Conclusion: This study highlights the high level of dust at the cement factory and its deleterious role on the respiratory health of workers. This necessitates the strengthening of protection measures within the company.

Keywords: Respiratory disorders, cement dust, particulate matter, spirometry, Togo

Biography:

Hinson is a occupational health praticionner, senior lecturer in occupational health at the university of Abomey-Calavi in Benin. As an expert with the WHO support, he is engaged in healthwise' training in Togo, in Benin and in french speaking countries. Also he built his expertise in informal sector mainly with the pesticide exposure of the farmers. He wrote many papers in air pollution.