

ABSTRACT

A cross-sectional descriptive study was done to study effect of cement dust exposure on respiratory function among workers in Kyankin Cement Plant, Ayeyarwaddy Region. Information was collected by two methods. The one hundred and seventy six workers were face to face interviewed about sociodemographic characteristics and their lung function were measured by spirometer and peak flow meter. Safety measure to control dust exposure was detected by observational checklist.

Among one hundred and seventy six workers, 80.7% of workers were male. Most of the workers (63.7%) were medium education level. The total service of less than 20 years was 60 % of workers. All sections were categorized into dusty and non-dusty workplace according to nature of work. Out of one hundred and seventy six workers, 65.9 % of workers were from dusty sections. Most of the workers with low education level worked in dusty section. Majority of workers (about 80%) had abnormal lung function according to FEV1 percent, FVC percent and 58.5 % of the workers had abnormal lung function according to PEFr result.

There was significant association between dusty workplace and lung function (p value=0.048). Dusty workplace revealed more abnormal lung function than non-dusty workplace. Although not compatible with other study, there was negative association between service duration and lung function. In assessment of relationship between smoking and lung function, abnormal lung function was more in ever smokers than never smokers according to PEFr result. There was significant association between using of mosquito coil and FVC percent. There was no provision, rule, regulation and supervision on personal protective measure in this cement plant. Dust protective system was not established in that plant. There was neither pre-employment medical examination nor regular periodic medical examination in this cement plant.