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OCCUPATIONAL HEALTH OF WORKERS IN WASTE HAIR REPROCESSING: STUDIES FROM WEST BENGAL, INDIA

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Waste hair reprocessing is becoming popular as a trade in recent years. Increasing demand is noticed from cosmetics to agriculture sectors. However, the workers associated with this occupation remain unnoticed from their health issue perspectives. We have performed an epidemiological study on 500 individuals (250 cases and 250 controls; age ranges from 18-60 yrs old), occupationally associated with waste hair processing from Midnapore district, West Bengal. The study indicates prevalence of pneumonitis, alveolitis, reduced lung function and tuberculosis in the population due to prolonged exposure to hair dust. Using hair dye like paraphenylenediamine (a potential carcinogen) in bare hands, might induce accelerated apoptosis and oxidative damage, subsequently increasing the risk malignant tumors including multiple myeloma and hematopoietic cancers in the work population. Risk of genetic damage has been studied from biological samples like blood, sputum, urine and hair samples. We are also investigating the role of genetic variations in target genes and individual susceptibility having similar occupational background. To the best of our knowledge, this would be the first study identifying the adverse health effects in the population, occupationally involved in waste hair re-processing, with detailed understanding at molecular level.

Biography

Sandip Bhattacharjee is a researcher in Occupation and Environmental Health, Siemens India. He has published many articles in reputed scientific journals.

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