



EPIDEMIOLOGY

ARSENICOSIS IN BANGLADESH: AN EXPERIENCE OF 23 YEARS.

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Background: Bangladesh is the worst sufferer of arsenicosis. Arsenicosis, the largest mass poisoning in history exposing 70 million people in 61 of 64 districts of Bangladesh due to consumption of arsenic contaminated underground water. It was first reported in 1993 overshadowing the significant achievement of safe water provision-“water miracle” for control water pollution using shallow tube wells of nearly 97% of the rural population.

Objective: To explore both benign and malignant cutaneous and internal lesions of arsenicosis and to assess the progressive changes over time with and without intervention.

Materials and Methods: It was a prospective study over 23 years (1994-2017) over a cohort of 20000 people of highly arsenic contaminated areas. Routine health checkup was done by trained field worker and physician. Physical examination, laboratory examination (biochemistry) and histopathology (if needed) was done.

Results: Total 1740 patients with arsenicosis were found, mean age was 39.67 ± 7.6 (16-70 years), pigmentary changes were found among all patients and Hyperkeratosis was found among 1364 (78.4%) patients. Different malignant or pre-malignant skin lesions were found in 140 (8.0%); among them Bowen's disease 74 (4.3%), SCC 44 (2.0%) and BCC 22 (1.3%). Ascites was found in 31 (1.8%), Bronchogenic Carcinoma 6 (0.3%), Ca bladder 8 (0.5%), Repeated abortion 32 (1.9%), Gangrene 19 (1.1%), Loss of limb 10 (0.6%), Infertility 8 (0.5%) and still birth 16 (0.9%).

Conclusions: People with arsenicosis are developing different complications including cutaneous and internal malignancy in spite of continuous preventive intervention.

