

TROPICAL DERMATOLOGY

## SKIN AS A MIRROR OF ARSENIC CONTAMINATION OF GROUND WATER : AN OBSERVATIONAL STUDY

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**Introduction:** Chronic arsenicosis is haunting the mankind since decades. The morbidity attributed to this notorious entity, is huge in countries like India and Bangladesh. It arises mostly due to consumption of contaminated drinking water.

**Objectives:** To study the clinico-epidemiological profile and cutaneous and systemic manifestations of patients with chronic arsenicosis; and correlate the histopathological findings in relevant cases.

**Materials and methods:** It was an institution-based, cross-sectional, observational study. All consenting patients with cutaneous and systemic features of chronic arsenicosis were included. Relevant history was taken, clinical examination was done and histopathological examination was performed. Organ specific tests were carried out, in relevant cases. Statistical package Medcalc V.12 was used for analysing the data.

**Results:** We found 84 confirmed cases of chronic arsenicosis, over a period of 24 months. Arsenical dyschromatosis was seen in 72 patients (85.71%), of which rain drop pattern was the commonest, followed by diffuse pigmentation. Arsenical keratoses were noted in 67 patients (69.76%), the moderate variety being most commonly observed type. Premalignant conditions, mostly multifocal Bowen's disease was noted in 21 patients (29.17%). Histologically confirmed cases of squamous cell carcinoma (4 cases), basal cell carcinoma (3 cases) and a rare case of porocarcinoma, were also found. Among the systemic findings, hepatomegaly, portal hypertension, restrictive changes on spirometry, peripheral neuropathy and abnormal electrocardiographic changes were observed.

**Conclusion:** Chronic arsenicosis is one of the major public health problems in India. An early diagnosis of the condition is essential to prevent the dreaded complications of the disease. To combat the crisis, the role of increasing the awareness and educating the masses regarding prevention strategies, cannot be over-emphasized. Larger studies are required to highlight the burden of the condition to the concerned authorities to ensure planning of fast track management strategies.