

EPIDEMIOLOGY

## BEHAVIORAL FACTORS ASSOCIATED WITH THE DEVELOPMENT OF SKIN CANCER IN PATIENTS WITH CHRONIC ARSENICOSIS

Towhida Noor<sup>(1)</sup>

*Dr. Sirajul Islam Medical College And Hospital, Dermatology & Venereology, Dhaka, Bangladesh<sup>(1)</sup>*

**Introduction:** Skin cancer in arsenicosis patients has been well documented over the past several decades. As our body's response to arsenic exposure varies among individuals, it can be said that other factors such as sun exposure, smoking, fertilizer use etc. might also contribute to the development of skin lesion in arsenicosis.

**Objective:** To observe association of skin cancer with behavioral factors such as exposure to sunlight, smoking, use of fertilizers and pesticides, among arsenicosis patients.

**Materials and methods:** This was a case control study; conducted in the department of Dermatology and Venereology, Bangabandhu Sheikh Mujib Medical University, Dhaka from April 2015 to August 2016. Arsenicosis patients with skin cancer were taken as case and without skin cancer were taken as control.

**Results:** In sun exposed area 57.2% of skin carcinoma was Bowen's disease, 28.6% was squamous cell carcinoma and 14.3% was basal cell carcinoma. In covered area 56.0% was Bowen's disease, 36% was squamous cell carcinoma and 8% was basal cell carcinoma. Again, 53.1% of case and 59.4% control never used fertilizer and pesticide; majorities were in non-smoker group (case 53.1%, control 59.4%). Mean cumulative sun exposure was more in case group ( $5853.9 \pm 2219.7$  hours) than in control group ( $2219 \pm 392.4$  hours) and the rate of sun exposure was also higher in case group.

**Conclusion:** In conclusion, the result of the study demonstrate that although sun exposure was significantly higher in carcinoma patients and as most of the lesions were in covered areas of the body, it can be said that these carcinomas were due to arsenicosis and not due to sun exposure and smoking status, use of fertilizer and pesticides were not associated with the development of skin carcinoma in Bangladesh.