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SKIN DISEASES AMONG CONSTRUCTION PAINTERS

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ABSTRACT

Background and objectives

Occupational exposure is a known risk factor for skin diseases. This study was undertaken to highlight the cutaneous manifestations among construction painters.

Methods

This prospective observational study was conducted in the Department of Physiology,
S. N. Medical College, Bagalkot, from January 2012 to December 2012. A total of 50 apparently healthy males aged more than 18 years who were exposed directly to chemical substances present in the paint were enrolled in study.

Results

The mean age in study group was 28.52 ± 9.85. The mean duration of painting in study group was 8.49 ± 7.98 years. Cutaneous manifestations were present in five (10%) of the painters that is three (6%) had itching and two had (4%) dry skin.

Interpretation and Conclusion

Construction painting workers are at risk of developing skin diseases. Hence precautionary measures should be taken to avoid skin diseases among construction painting workers.

Key words Cutaneous manifestations; Occupational health; Skin diseases

INTRODUCTION

Globalization and rapid industrial growth in India during the last few decades have resulted in emergence of occupational health related issues.[1] Certain occupations are known to produce skin diseases. Construction workers are exposed to a wide range of substances that may result in skin diseases including cement dust, wood dust from sawing, dust from the ground, dust from using pneumatic tools on concrete or other stone work, fumes from welding, roofing or paving, and diesel exhaust from machines.[2] It has been suggested that painters may be at increased risk of skin disease due to exposure to solvents and other materials found in paints. Various potentially toxic materials are used in different types of paints, including epoxy resins, isocyanates, metal pigments, silica fillers, and organic solvents.[3] To date, little is known about the patterns of skin diseases among the painters in construction industry. Knowledge about skin diseases may facilitate identification of disease patterns which might benefit from prevention of skin diseases. In this study an attempt was made to evaluate the pulmonary function tests and highlight the respiratory disease patterns and the cutaneous manifestations among construction painters.

Methodology This one-year prospective observational study was carried out from January 2012 to

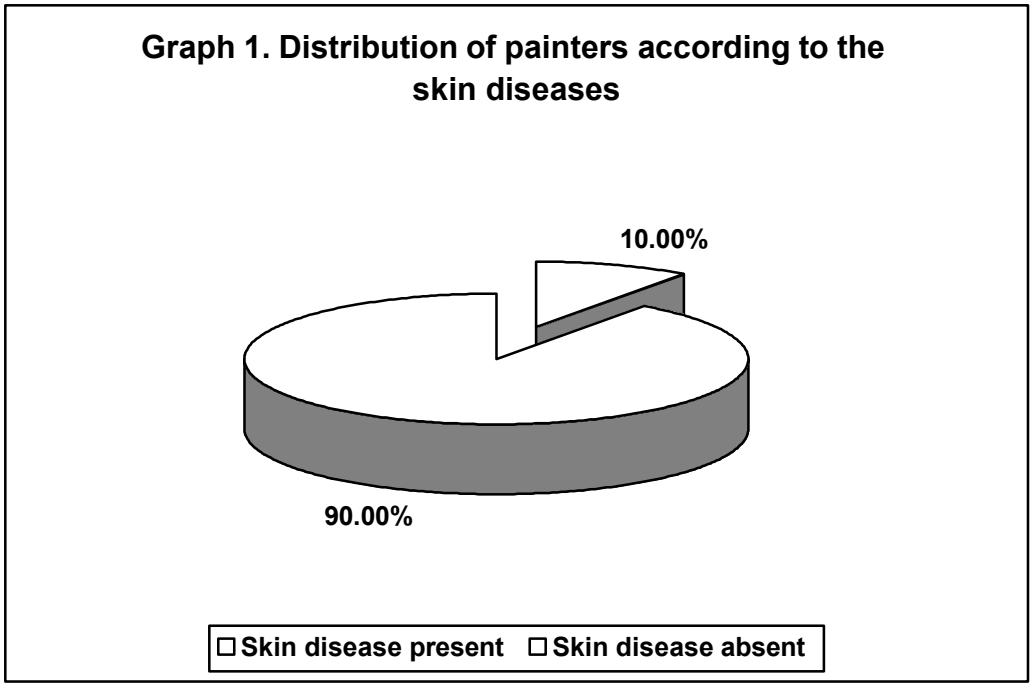
December 2012 in the Department of physiology situated at a tertiary care hospital in North Karnataka. Prior to the commencement, ethical clearance was obtained from the Institutional Ethics committee. This study was comprised of 50 painters registered at Building Construction Union in the study area. Apparently healthy males aged more than 18 years who were exposed directly to chemical substances present in the paint were enrolled in study group Individuals with chronic disease like, diabetes mellitus, hypertension, cardiac disease and with history of respiratory disease, pre-existing skin diseases were excluded from the study. Prior to the enrolment, painters were explained about the nature and benefits of the study and a written informed consent was obtained. The selected painters and individuals were interviewed and a detailed history and demographic data including age was obtained. Further, all the painters and individuals were evaluated skin diseases.

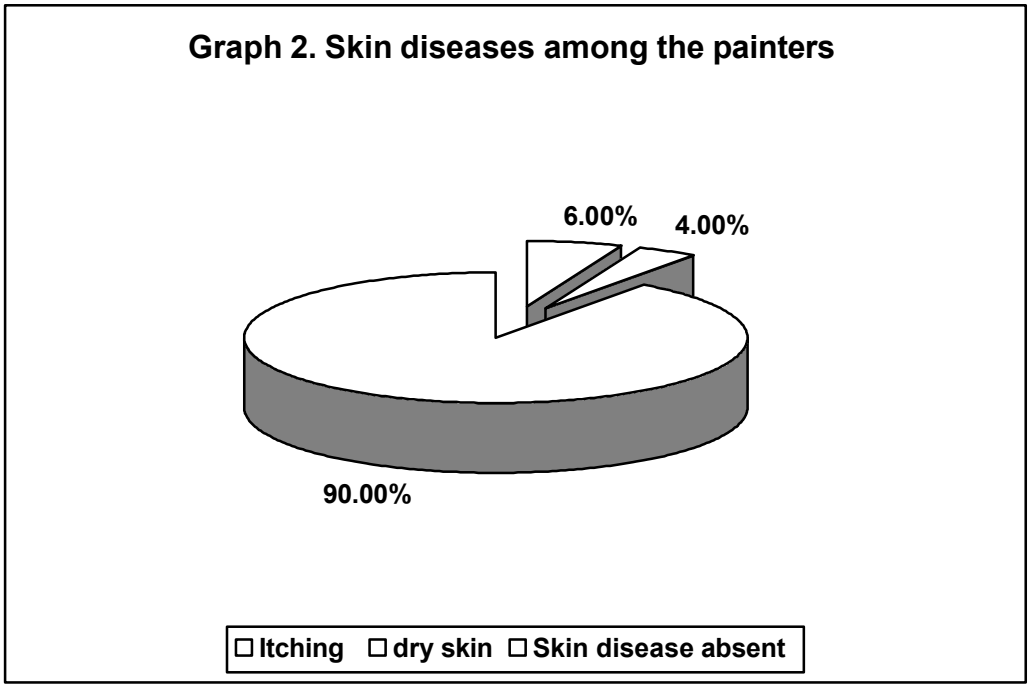
STATISTICAL ANALYSIS

The data obtained was coded and entered into Microsoft Excel spread sheet and master chart was prepared. Mean and Standard Deviation (SD) were calculated for quantitative variables and results on categorical measurements were presented in numbers and percentages.

RESULTS

The mean age of the study participants was 28.52 ± 9.85 years. The mean duration of painting was 8.49±7.98 years. The history of smoking was present in 26%, tobacco consumption in 6%. The skin diseases were noted among five (10%) painters. Thus, the incidence of ccutaneous manifestations was 10%.





DISCUSSION

In this study skin diseases were noted among five (10%) painters. The incidence of ccutaneous manifestations was 10% with itching as common manifestation. Studies on the epidemiology of ccutaneous manifestations among construction painters are scarce. To-date only one study was noted by Kumari A. et al.[4] (2010) from Patna, Bihar India where authors documented skin diseases in 65 out of 103 painters that is 63.10% with contact dermatitis being common which was very high compared to the present study. Overall, the present study showed that construction painting workers are at risk of developing skin diseases. However this study had certain limitations that is, smaller sample size selected from single center. Further multricentric studies on large samples may further provide the profile of skin diseases among painting construction workers.

CONCLUSION

The present study showed that construction painting workers are at risk of developing skin diseases.

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