

Dermatoglyphic Pattern of Patients Consuming Tobacco

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Abstract

Aim- To know the dermatoglyphic pattern of patients who were consuming tobacco but did not have any associated lesions.

Material and method- A total of 25 patients were included in the study. These patients gave positive history of tobacco consumption, however, there were no associated lesions. Fingerprints of both right and left hand were recorded using ink method and the fingerprints were analysed.

Results- Loops was found to be the most common finding followed by whorls and arches.

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I. Introduction

Human skin, the largest and delicate organ of the human body can perform many vital functions in life. The palms of the hands and the soles of the feet are covered with two totally distinct classes of marks. The most conspicuous are the creases or folds of the skin which interest the followers of palmistry.[1] The term was coined in 1926 by Cummins and Midlo, although Cummins is considered to be the father of dermatoglyphics.[2] Toward the end of the 19th century, Galton put forth a rule called "proof of no change," which states that an individual's dermatoglyphics remains unchanged throughout his/her lifetime.[3] Due to their unique nature, studying them can determine a number of parameters, which could be helpful in diagnosing and treatment of examined individuals.[4,5] Epidemiological and experimental evidence indicates a causal relationship between tobacco (smoking and nonsmoking) and the development of various oral precancers and frank cancers; however, only a fraction of people exposed to tobacco develop such lesions as well as frank OSCC. OL and OSF are the prime lesions to be considered in this regard as most of the OSCCs are preceded by either of these two precancerous lesions and/or conditions. [6] Genetically determined differences among individuals explain the susceptibility

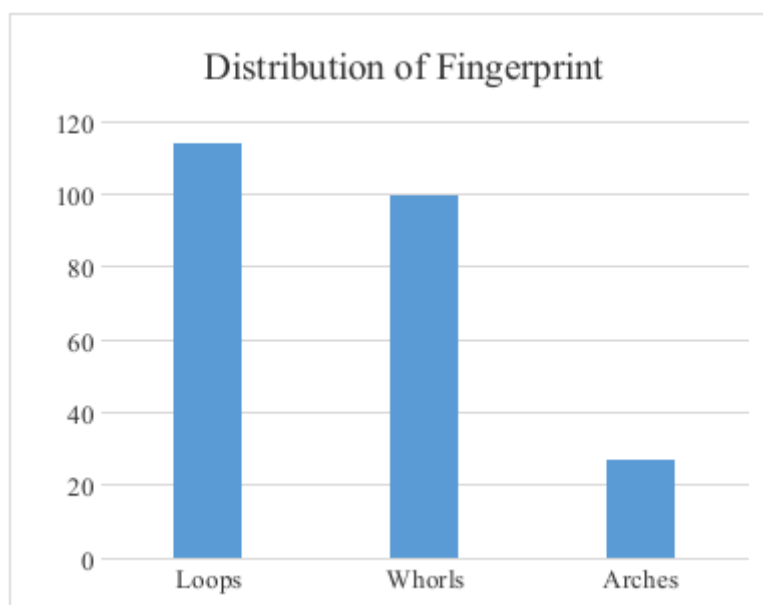
Aim and Objective-

1. To know the dermatoglyphic pattern of patients who were consuming tobacco but did not have any associated lesions.
2. To know the number of loops, arches and whorls of tobacco consumers.
3. To counsel and motivate the subjects with tobacco habit and follow up the same subjects.

II. Material And Methods

A total of 25 patients were included in the study. Those subjects who gave positive history of tobacco consumption but did not have any associated lesions were included. Individuals were explained about the study and only those individuals who gave consent were included in the study. Complete case history was recorded with thorough clinical examination using specially designed case history format. Ink method was used to record the palm and finger prints. Print of fingertip was recorded first followed by that of the palm on a white paper. Then the finger and palm prints will be analyzed qualitatively and quantitatively using magnifying lens.

III. Results



A total of 25 subjects were recorded in the study. Majority of the prints consisted of loops which were 123 loops followed by whorls which were 100 whorls, pattern which showed least number was arches with only 27. 49.2% of the fingerprints consisted of loops, 40% consisted of whorls and 10.8% of the fingerprints consisted of arches.

IV. Discussion'

In our study, a total of 25 individuals were included. Out of these 49.2% of the fingerprints were that of loops and 40% were that of whorls, 10.8% consisted of arches. The dermatoglyphic patterns may be utilized effectively to study the genetic basis of oral cancer and oral submucous fibrosis. In developing country like India, it might prove to be non invasive, inexpensive, and effective tool for screening. These patterns may represent the genetic makeup of an individual and therefore their predisposition to certain diseases.

V. Conclusion

This study was conducted to know the dermatoglyphic pattern of patients with habit of tobacco consumption. However, this was a short term study and more studies comparing the normal dermatoglyphic pattern with that of premalignant lesions and SCC.

References

- [1]. Madan N, Rathnam A, Bajaj N. Palmistry: A tool for dental caries prediction! *Indian J Dent Res* 2011;22:213-8.
- [2]. Venkatesh E, Bagewadi A, Vaishali K, Arvind S. Palmar dermatoglyphics in oral leukoplakia and oral squamous cell carcinoma patients. *J Indian Acad Oral Med Radiol* 2008;20:94-9.
- [3]. Kimura S. Embryologic development of flexion creases. *Birth Defects Orig Artic Ser* 1991;27:113-29.
- [4]. Stosljevic M, Adamovic M. Dermatoglyphic characteristics of digito-palmar complex in autistic boys in serbia. *Vojnosanit Pregl*. 2013;70:386-90.
- [5]. Kamboj M. Dermatoglyphics. *Br Dent J* 2008;204:51.
- [6]. Galton F. *Finger Prints*. London: Macmillan Publishers; 1892. p. 3-5.

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