Dermatoglyphics: A Link to Periodontal Disease

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Background: Periodontitis is a chronic inflammatory disease affecting the connective tissue attachment and supporting bone around the teeth. The necessity lies in segregating the evidences and acknowledging their potential role in disease pathogenesis. Although periodontal diseases have multifactorial etiology, their genetic determinants that exist could be suggestive of specific dermatoglyphic patterns for chronic periodontitis and aggressive periodontitis. Hence, the present study is conducted to study the role of palmar dermatoglyphics as a potential indicator for periodontal infections.

Objective: The present study compares the palmar dermatoglyphic patterns among healthy controls, chronic generalized periodontitis and aggressive periodontitis.

Materials & Methods: The present cross sectional study comprised of 60 patients categorized into three groups: Healthy controls – 20 individuals; chronic generalized periodontitis - 20 individuals; aggressive periodontitis – 20 individuals; in whom various palmar patterns were evaluated as compared to healthy controls to find a dermatoglyphic marker, if any.

Results: A statistically significant higher percentage of ulnar loop frequency (75%) was found in chronic periodontitis group as compared to whorls in healthy individuals (30%) and (50%) in aggressive periodontitis (p<0.001). Percentage of palmar tri-radii was assessed in all three groups and shown that (p=0.334).

Conclusion: The present study revealed that dermatoglyphics plays an important role in determining genetic susceptibility in developing periodontal diseases.

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