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Rugoscopy and Blood Group - An Aid to Forensic Odontology

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ABSTRACT

Statement of problem: Identification plays a major role in any crime investigation. It is difficult to identify people when visual recognition and fingerprint analysis turn out to be ineffective like in advanced stage of decomposition or burnt cases. **Aim:** The aim of the present study is to determine the correlation of Rugoscopy with Blood groups. **Objectives:** To evaluate the pattern of palatal rugae and distribution of its characteristics among subjects having different ABO and Rh blood groups. **Methods:** A total of 40 subjects were enrolled in this study in the age group of 18–60 years. Pattern of palatal rugae regarding the number, size and shape of rugae was identified according to the classification of Kapali et al. The palatal rugae of each subject were recorded by using an irreversible hydrocolloid impression material(alginate) in a perforated tray. Blood sample for blood grouping was taken and verified for blood group. The palatal rugae pattern of 40 subjects were then co related with blood groups and recorded. The data was subjected to chi square test. **Results:** Primary rugae type showed the highest number while the most frequent shape was the wavy shape, followed by the curved shape. Converging form of unification was also found to be more prevalent than the diverging form. No statistically significant correlation was found between blood group and distribution of its characteristics of palatal rugae. **Conclusion:** Correlation of palatal rugae patterns and blood groups might give valuable indications for the identification of suspect and help in gaining forensic evidence. This study showed a specific rugae pattern in the studied adult Indian population when compared to other populations' patterns that were reported in the literature.

Keywords: forensic identification, palatal rugae, rugoscopy, blood groups