

COMPARATIVE STUDY OF RUGAE PATTERN AMONGST SAUDI, AUSTRALIAN ABORIGINES AND CAUCASIANS

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ABSTRACT

A comparative study was conducted to compare the number, shapes and unifications of rugae pattern amongst Saudi, Australian aborigines and Caucasians. The method of identification was that suggested by Kotze (1983). Within the limitation of this study that rugae pattern can be used as additional or a substitute method for identification provided that there is an antimortem record.

INTRODUCTION

Several studies were conducted to investigate the inter racial differences in rugae pattern (Hemickel 1926; Hirota 1933; Wildt 1935; Ohchima, 1937). Schultz (1958) studied the palatal rugae in primates and man. He found some variations. He studied the American Caucasians and Negroes and found that there are inter-racial differences. In 1972, Thomas reported that there are inter-racial differences and sex difference. Comy (1973) stated that *racial differences are not important, while Tzardora and Jardanor (1970) found in their Bulgarian sample that the posterior border of rugae zone is more anteriorly placed than other population. On the other hand, Thomas Kotze (1983) found different between Bushman Negroes and the Caucasians. Other studies, by Hanser and Roberts (1998) in Greek population and Swazi concluded that intra-interpopulation comparison both suggests that development of rugae is co-ordinated with that*

of the palate as a whole. William's et al (1988) supported the hypothesis that palatal rugae are unique and identification could be based upon their comparison. Kapali et al (1997) compared the Australian aborigines, and Caucasians and found that the mean number of primary rugae in Aborigines was higher than in Caucasian. Although more primary rugae in Caucasian exceed 10 mm in length than Aborigines. There was statistically significant association between rugae forms and ethnicity.

MATERIALS AND METHODS

One hundred healthy Saudi subjects 50 males and 50 females were selected for this study. All the subjects were free of dental abnormalities or orthodontic treatment. The mean age and sexes are illustrated in Table (1). Stone casts were poured immediately for the upper arch from an accurate alginate impression. The casts were free of voids or air bubbles specially in the anterior region of the palate.

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