

AN ODONTOMETRIC STUDY OF THE PERMANENT MOLARS IN TWO ETHNIC GROUPS IN SRI LANKA

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The shape and the size of the teeth are known to vary. Evolutionary anthropologists have highlighted that the size and the shape of the teeth change due to selective forces, technological and dietary changes during human evolution. These dimensions also furnish human biologists and clinicians with an insight into the genetic relation between populations and environmental adaptation. A study was undertaken to establish mesiodistal, buccolingual and occlusal dimensions of the permanent molars of the Sinhalese and Sri Lankan Tamil adult males.

Eighty males belonging to the Sinhalese and Sri Lankan Tamil ethnic groups (40 Sinhalese and 40 Sri Lankan Tamils) in the age range of 20 – 35 were selected. Three generation pedigree was recorded for each individual in order to check the ethnicity. Teeth were selected for measurements only if they were morphologically normal and fully erupted, not noticeably affected by attrition and caries and not restored. Only individuals having the normal occlusion were included in the study. Measurements were obtained on the dental casts taken from each subject. The measurements included, mesiodistal and buccolingual crown diameters (MD and BL) of the maxillary and mandibular molars, MD and BL diameters of the trigonid and talonid (TRMD, TLMD, TRBL, TLBL) of the mandibular molars. All measurements were recorded to the nearest 0.01 mm. using a digital vernier caliper by one investigator. The means and SDs of the MD and BL crown diameters of the maxillary and mandibular molars, TRMD, TLMD, TRBL, and TLBL of the mandibular molars were computed. Differences between the means were tested for significance using the student's t-test.

Mean values of all measurements of teeth were larger in Sri Lankan Tamils than in the Sinhalese. However, significant differences were observed for the MD and TLMD of the mandibular second molar tooth and MD of the maxillary first molar tooth between Sri Lankan Tamil and Sinhalese males.