

## ABSTRACT

The variation of sexual dimorphism of maxillary and mandibular canine teeth among different ethnic population have been reported. The purpose of this study was to determine the variation of sexual dimorphism of permanent maxillary and mandibular canine teeth and the intercanine distance between Saudi and Indian populations. Five hundred and three Saudi school students from Riyadh and 301 Indian school students at Riyadh, Saudi Arabia consisting of both the sex were examined. The mesiodistal width of canine teeth and the intercanine distance in a straight line were measured using Vernier Caliper with 0.1 mm resolution. The data was analyzed using multivariate quadratic discriminant analysis for sex classification. The difference for mean mesiodistal width of canine teeth of both the jaws between males and females in Saudi population was not significant, when compared to the Indian population which was highly significant ( $P < .0001$ ). In Saudi population 56% females and 54% males were correctly classified using mandibular sex specific data. Maxillary arch sex specific data permitted 35.7% female and 33.3% male correct classification. In Indian population 98% females and 99% males were correctly classified using mandibular arch sex specific data. Maxillary arch sex specific data permitted 97.35% female and 100% males correct classification.