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"APPLICATION OF DEMIRJIAN'S 8-TEETH METHOD IN AGE ESTIMATION OF AN INDIAN PEDIATRIC POPULATION."

By

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ABSTRACT

Background: Teeth represent useful material for age estimation. The most frequently used methods are based on dental calcification with OPGs. These methods have the advantage of being noninvasive and easy to use. The Tooth Development Stages described by Demirjian and his co-workers is considered as the most simple and reliable method.

Aims: To apply Demirjian's formulae on an Indian sample and compare the age prediction success to that in the original formula and in case of recognizable differences, develop India-specific formulae and verify their ability to accurately predict age.

Materials and Methods: The 298 OPGs were selected for the study in which 250 samples were tested with Demirjian's 8-teeth method and 48 samples were tested with the derived Indian specific formula. Dental development in each radiograph was assessed based on Demirjian's description and the age determined was compared with the actual age. As the age estimates were recognizably inferior therefore India specific formula was developed and tested.

Results: This study reported high error rates with the use of the Demirjian's formulae. Therefore, India specific formulae were formulated which showed better ersults.

Conclusion: This study concluded that the Demirjian's 8-teeth method may be inaccurate when applied to the Indian pediatric population requiring the adaptation of it before applying in the Indian population.

Keywords: age estimation; chronological age; Demirjian's formula; dental age.