THE ACCURACY OF DENTAL PANORAMIC RADIOGRAPHY AS AN INDICATOR OF CHRONOLOGICAL AGE IN IRANIAN INDIVIDUALS

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Growth rate is dependent on genetic and environmental factors and varies between the sexes, between individuals of the same population and between populations themselves. There is strong concern over the dental and bone testing procedures conducted to determine the age of young individuals for legal reasons. Inaccurate results would lead authorities to imprison some children in adult prisons, which are unsafe and inappropriate for minors.

This study was designed to determine the relationship between dental age, the age from dental panoramic radiography, skeletal age and chronological age in patients referring to dental clinics of Yazd, Iran, for third molar surgery. The sample for the study consisted of 58 subjects between 15-25 years of age. The results indicated that estimating the age by examination of extracted lower wisdom teeth was most accurate. However, as use of this method i.e. extraction of tooth or dental surgery is not possible in normal individuals. Estimating the age from dental panoramic radiography showed high accuracy when applied to the patients.

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APPLICABILITY OF THE DIMODENT EQUATION OF SEX PREDICTION IN A LEBANESE POPULATION SAMPLE

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Background: Sexual dimorphism represents a group of morphologic characteristics that differentiate a male from a female. Among these dimorphic traits, tooth size has been evaluated in various populations for its interest in anthropologic and forensic
applications. Recent studies have shown that dental dimorphism is population-specific and that the most dimorphic tooth is the mandibular canine. In addition to the dimension of single teeth in dimorphic dental assessment, dimorphism has been evaluated, using equation of prediction, applying various dimensions of one or more teeth or indices. Purpose: The objective of this preliminary study was to evaluate the applicability of the Dimodent predictive equation in sex determination in a sample of Lebanese young individuals. Materials and Methods: Mesiodistal widths of the mandibular canine and lateral incisor were measured from dental casts of the permanent teeth of 60 Lebanese University dental students (30 males and 30 females), aged 18-25 years. The sex-predictive equation of Fronty was applied to calculate the percentage of accurately-diagnosed sexes. Results: Accuracy of sex prediction ranged from 63.3% for males and 90% for females. Overall, the Dimodent equation enabled a correct sex determination in 76.7% of the cases. When compared to the accuracy obtained with this equation in a French population sample, the accuracy was significantly different ($Z = 3.1225$). Conclusions: This research supports earlier studies that sexual dimorphism is population specific. The difficulty or lack of dimorphism seems to originate from male subjects. Further investigations should include the preparation of population-specific prediction tables and testing their accuracy in a larger sample with a strongly-established Lebanese background.

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THE STABILITY OF LIP PATTERN CHARACTERISTICS OVER TIME

R.C. Coward

This paper studied the lip prints of 85 subjects over a seven-month period. The patterns of the vermilion zone were shown to be stable with the passage of time. The number of matching features needed to prove concurrence between two prints was determined to be eight. Features of the lip print relative to the surrounding anatomy were also examined and found to be stable, recordable and to contribute to the usefulness of lip prints as a forensic tool.

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AN ATYPICAL AIR BAG INJURY?

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The air bag is a passive safety device capable of saving many human lives each year. However, in a certain number of cases, it is itself the source of injuries to the occupants of a motor vehicle, mostly of cutaneous burns. The case describes peculiar abrasions to the enamel of the teeth scraped by the air bag, in particular atypic lesions involving the upper arch showing buccal rings of demineralization associated with roughness of the enamel that progressively assume a trend of fine
Parallel oblique striae from bottom to top and from left to right, as literature describes for cutaneous burns due to air bag insult.

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**“CHOUMP” ENAMEL TATTOOS**

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Identification of both living and deceased individuals may be made by recognition of physical characteristics or comparison with data from medical or dental records. Data with low frequency of occurrence are prized by identification specialists. Two cases are presented of highly individual enamel tattoos.

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**PROCEDURES FOR THE COLLECTION OF DENTAL RECORDS FOR PERSON IDENTIFICATION**

K.A. Brown

Dental treatment records offer a valuable resource for establishing the identification of deceased persons by means of dental comparison as required for forensic purposes. The creation, maintenance, storage and custody of such records is a legal and ethical duty of each dental practitioner. Dentists in Australia are also bound by federal and state legislation to protect their patients’ confidentiality at all times. They are also required by law to note and report evidence of child abuse observed in the course of their treatment.

When dental records are required for forensic purposes certain procedures should be followed for their release and collection. This paper discusses these procedures, and illustrates by reference to an actual case the possible consequences of deviating from established protocols.

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