CONE BEAM COMPUTED TOMOGRAPHY (CBCT) FOR DETERMINING MIDPALATAL SUTURE MATURATION: A CASE REPORT

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ABSTRACT

In orthodontics and dentofacial orthopedics, the timing of the treatment onset is as critical as the selection of the specific treatment protocol. The issue of optimal timing is linked to the periods of accelerated growth contributing significantly to the correction of skeletal imbalances. Skeletalmaturity can be assessed by several biologic indicators: increase in body height, hand-wrist radiograph, dental development and eruption, menarche or voice changes, and cervical vertebral maturation (CVM).

The start and the advance of fusion of mid palatal suture varies greatly with age and sex, in which late adolescent or young adult patient can have rapid maxillary expansion (RME) as a less invasive alternative to surgically assisted expansion.

Cone-beam computed tomography (CBCT) gives 3-dimensional images of the oral and maxillofacial structures at low cost, no superimposition of adjacent structures, easy accessibility and low radiation exposure.

This case report describes the use of CBCT as an accurate diagnostic aid adjunct to different skeletal maturity indicators in a patient requiring RME.

KEYWORDS: CBCT, CVM, Hand-Wrist Radiograph, Occlusal Radiograph & RME

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