

Advantages of CAD/CAM Technologies in Prosthetic Treatment of Pediatric Children

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Abstract:

The use of Computer-aided design (CAD) and computer-aided manufacturing (CAM) has shown tremendous success in recent years. The aim of this review is to evaluate the advantages of digital technologies in pediatric patients. A data search was performed in three databases (Medline-Pubmed, Scopus, and Web of Science). Pediatric dental patients are more impatient during treatment, and this necessitates a different approach. Numerous diseases both congenital - clefts, oligodontia and anodontia, and those leading to tooth loss due to complications of caries, MIH, trauma, and others, may require subsequent prosthetic treatment. The digital approach can be used in the different stages - clinical - intraoral scanning, and laboratory - printing and milling of applications depending on the patient's needs and material requirements for children. Improved patient compliance and acceptance of treatment are two main advantages. Furthermore, the materials developed in recent years for CAD/CAM techniques of production induce neglectable changes in oxidative stress level and provide high corrosion resistance, thus ensuring higher biocompatibility of the restorations.

Keywords:

digital dentistry, pediatric dentistry, CAD/CAM, advantages, prosthetic treatment.