SISTEMAS CAD/CAM: REVISÃO SISTEMÁTICA

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RESUMO:

Introdução: O uso da tecnologia CAD/CAM (*Computer Aided Design - Computer Aided Manufacturing*) tornou-se popular nas últimas décadas na Odontologia por desejar suprir os principais desafios encontrados durante a utilização de métodos convencionais ao decorrer da produção das restaurações indiretas. Logo, a Odontologia restauradora vem evoluindo gradativamente e o campo da cerâmica dentária destaca-se na mesma proporção, pois estão ocorrendo constantes avanços nas propriedades dos materiais à base de cerâmica e nas técnicas de produção. Dentre esses avanços está o uso do método CAD/CAM, um sistema que permite a formulação de um desenho por computador e a manufatura do mesmo.**Objetivo:** Este estudo teve como objetivo realizar uma revisão sistemática da literatura, comparando os métodos digitais disponíveis (CAD/CAM), em relação aos métodos convencionais, além dos principais benefícios da atualização do cirurgião-dentista frente aos avanços tecnológicos desenvolvidos pelos sistemas CAD/CAM. **Metodologia**: Trata-se de uma revisão da literatura, utilizando as bases MEDLINE e PubMed, em que foi empregado os descritores "Computer- Aided Design", "Ceramics", "Technology, Dental." Além disso, na pesquisa foram incluídos periódicos completos disponíveis eletronicamente internacionalmente, no idioma inglês, publicados e indexados nas referidas bases de dados nos últimos cinco anos entre (2014-2019) em que retratassem a temática em estudo. **Resultados e Discussão:** Mediante as pesquisas realizadas, foram escolhidos artigos lidos por título e por resumo, após a análise dos resumos foram selecionados 93 artigos, posteriormente a exclusão de artigos irrelevantes e duplicados, 44 artigos foram incluídos nesta revisão sistemática. Os artigos foram subdivididos

em revisões da literatura, estudos clínicos e estudos laboratoriais.**Conclusão:** As evidências disponíveis apoiaram a alegação que o uso dos sistemas CAD/CAM se sobrepõem aos métodos convencionais devido a sua grande aplicabilidade clínica na Odontologia, produzindo desde de peças inlays à próteses maxilofaciais e implantes, apresentando redutibilidade do tempo durante atendimento de trabalho.

Palavras-chave: Cerâmica, Projeto Auxiliado por Computador, Tecnologia Odontológica.

ABSTRACT:

Introduction: The use of Computer Aided Design (CAD / CAM) technology has become popular in recent decades in dentistry because it wishes to address the main challenges encountered while using conventional methods during the production of indirect restorations. Therefore, restorative dentistry has been evolving gradually and the field of dental ceramics stands out in the same proportion, as constant advances in the properties of ceramic-based materials and production techniques are occurring. Among these advances is the use of the CAD / CAM method, a system that allows the formulation of a computer design and its manufacture. **Objective:** This study aimed to perform a systematic literature review, comparing the available digital methods (CAD). / CAM), in relation to conventional methods, in addition to the main benefits of updating the dentist in face of technological advances developed by CAD / CAM systems. **Methodology:** This is a literature review using the MEDLINE and PubMed databases, using the descriptors “Computer-Aided Design”, “Ceramics”, “Technology, Dental.” In addition, full journals were included in the research. available electronically internationally, in English, published and indexed in the referred databases in the last five years between (2014-2019) in which they portray the theme under study. **Results and Discussion:** Based on the research carried out, articles read by title and abstract were chosen. After analyzing the abstracts, 93 articles were selected, after excluding irrelevant and duplicate articles, 44 articles were included in this systematic review. The articles were subdivided into literature reviews, clinical studies, and laboratory studies. Conclusion: The available evidence supported the claim that the use of CAD / CAM systems overrides conventional methods because of their great clinical applicability in dentistry, producing from inlays. to maxillofacial prostheses and implants, presenting time reducibility during work attendance.

Keywords: Ceramics, Computer- Aided Design, Technology, Dental.

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