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THE IMPORTANCE OF USING MODERN TECHNOLOGIES IN DENTISTRY

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Abstract: With new technological advances in computer-aided design and computer-aided manufacturing (CAD/CAM) of dental restorations, predictable interdisciplinary treatment using a reverse planning approach appears to be useful and feasible. It is noted that, thanks to advances in medical imaging and computer programming, 2D axial images can be processed into other reformatted views (sagittal and coronal) and 3D (3D) virtual models representing the patient's own anatomy. The article provides information that in the age of digital dentistry, virtual treatment planning is becoming an increasingly important element of dental practice.

Keywords: Virtual nurses, voice technology, virtual assistants, artificial intelligence, virtual reality, 3D printing.

INTRODUCTION: Artificial intelligence (AI) is a branch of computer science that is engaged in the development of algorithms aimed at simulating human intelligence [1, 2]. It is known that the concept of AI is associated with the invention of robots. In this regard, it would be unfair not to mention the name of Leonardo da Vinci: today's growing use of robotic surgery, named after him, is associated with him. Da Vinci's albums with sketches of robots helped prepare the ground for this innovation. AI, described as the science and technology of creating intelligent machines, was officially born in 1956. This term is applicable to a wide range of subjects in medicine, such as robotics, medical diagnostics, medical statistics and human biology [3]. Due to its amazing power in image recognition, AI will find great application in the identification of dentofacial deformities in the near future [4].

MATERIALS AND METHODS: Dentofacial deformities are treated by dentofacial surgery, which includes those surgical procedures that affect the teeth and supporting structures associated with the oral cavity. This section includes the treatment of odontogenic infections; erupted, unerupted and impacted teeth; third molars; periradicular pathology; as well as revision, reduction and correction of deformations and defects of the dentofacial complex. Implantation surgeries, traumatic injuries, pathological conditions and reconstructive surgery applicable to the dentofacial complex are not included [5].

RESULTS AND DISCUSSION: Mashinnoe and AIs are applied in the consumption of the same time for the same time to the fraud of the adoption of the adoption of rosary memorials, dagnes, prostrino and fading. So far, only a few robotic applications have become a reality, mostly these were pilot use cases [6]. Nuance Communications announced the release of its new product - an AI-based virtual assistant designed to interact with patients and doctors. The new Dragon Medical Virtual Assistant, developed by Nuance Communications, is designed to speed up a variety of clinical workflows and can be used by the approximately 500,000 physicians who are already using Dragon Medical software system for its clinical documentation. This software uses the functionality of conversational dialogues and already built-in capabilities that automate work processes. This virtual medical assistant has the features of voice recognition technology specially optimized for healthcare, uses biome voice technology trii and text-to-voice translation, can integrate with the electronic medical records system and relationship management system. All these functions are designed to perform specific clinical tasks, and the platform itself ensures data protection [4].

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Also known is the pilot project of the international Internet group Balint group in collaboration with regional movements of young doctors of the World Organization of Family Physicians and the International Federation th Balint. The Balint Method 2.0 arose thanks to the interest of the leadership of the movement of young doctors, who turned to the International Balint Federation for help. Initial discussions and some testing of videoconferencing platforms led to monthly group meetings via the Internet. The surveys assessed each individual session, as well as the quarterly progress of the group. Survey elements were adopted from existing surveys used by the American and German Balint societies. Session survey results demonstrated the effectiveness of the videoconferencing platform for convening the Balint group, with the majority of participants expressing agreement with the survey items assessing each session. Quarterly survey responses were more positive, reflecting agreement with the results received from Balint's personal groups. The Balint 2.0 pilot demonstrated the Balint Group's ability to successfully meet online and achieve shared results from an in-person Balint Group meeting. The Young Doctors Movement and the Balint International Federation plan to expand this work based on this successful pilot project [3].

In the age of digital dentistry, virtual treatment planning is becoming an increasingly important element of dental practice.

CONCLUSION: Virtual technologies have opened up new opportunities in the development of medicine and the work of medical staff. Dentistry is advancing using virtual reality, on which applications are developed for teaching students and computer systems for treating patients, virtual personal assistants based on artificial intelligence, who perform various functions of nurses and other programs. AI is a very powerful tool, and the entire medical profession has a responsibility to achieve a positive symbiosis between clinical sense and AI. Voice assistants are actively used in healthcare. Also, three-dimensional printing is used in various areas of dentistry: endodontics, surgery, orthopedics. Virtual technologies make a great contribution to the development of medicine.

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