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New Technologies: Revolutionizing the Dentistry

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Introduction:

New advanced diagnostic technology, skilled personnel, new advanced dental materials and wisely formulated futuristic evidence-based treatment plan/ course as well as regulatory bodies will be a key for success of the Dental profession. However, more emphasis shall be given on preventing dental caries and practicing good oral hygiene to all citizens from their childhood onwards. Awareness in the Indian population about various dental and their specific work is limited. The work of all existing specialties of dentistry needs to be more popularized through print and electronic media, and dental patients to reach specific dental specialist for specific work. So that they can receive actual treatment for a specific disease. Dental practitioners need to learn referral practice, which is less seen in the dental profession.

Digitization in dentistry:

Modernized dentistry stands *as a beacon of innovation and progress, revolutionizing patient care and* oral health practices. Moreover, Dentistry has undergone tremendous transformation due to the introduction of new technologies, allowing dentists to treat patients more effectively and efficiently. Technology breakthroughs, such as 3D printing, intraoral scanners, digital X-rays, CAD-CAM, have completely changed the way dental care is provided, making it more precise, secure, and patient-friendly.Digitization in dentistry has become a major breakthrough in improving imaging techniques. Take the example of Cone beam computed tomography (CBCT), which makes it possible to analyse teeth in three dimensions for treatment plans in periodontal, orthodontic, prosthetic, prosthetic surgery and pediatric Dentistry. Another advancement is Intraoral scanners which are devices for taking optical impressions that takes images of the dento-gingival tissues captured by imaging sensors and are processed by the software for image processing, which generates 3D Surface models on the computerthat acts as a visual alternative for the traditional plaster models.

Nanodentistry:

Adding to the unmatched growth in the fields of medical research is Nanotechnology which has transformed all sectors of healthcare into a new state of art that focuses on nanoparticles. Nano-dentistry has Nanocomposites, Nano Light-Curing Glass Ionomer Restorative material, Nano Impression Materials. Dental nanorobotics provides new avenues for molecular disease imaging, therapeutic intervention tools, and the detection of clinically important indicators of the disease. Nanotechnology has the potential to revolutionize dentistry.

Lasers:

Another advancement in field of Dentistry that has become an essential component of contemporary dental practice is LASERS. With their wide variety of applications in surgeries, removal of pathologies, photo-biomodulation therapy, 3D laser scanners, combining therapeutic and diagnostic laser techniques is anticipated to be another area of future expansion.

Artificial intelligence:

Applications of Artificial Intelligence in the dental field is yet to be established. However, robotic assistance, dental imaging diagnostics, caries detection, radiography and pathology, and computerized record keeping have all positively impacted field of dentistry. This may help clinicians to integrate AI algorithms to further improve the decision-making and planning the best-required treatment plan for their patients in upcoming years in dentistry.

Dental practitioners must remain updated with the newest advancements in technology to deliver optimal

patient care. Modern dentistry has greatly benefited from modern technology from the perspective of public health, and this trend is probably going to continue in the years to come.

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