



Review Article

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The Near Future of Robotic Surgery in Dentistry: from Clinical Assistant to Autonomous Operator

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Abstract

The next decade (2026–2035) will witness the most significant transformation in oral surgery since the introduction of the dental handpiece. Robotic systems, currently validated for implant osteotomies, are evolving toward autonomous, AI-driven operation. This article examines the immediate horizon (5–10 years) for robotic dental surgery. It analyzes three critical vectors: the shift from passive guidance to autonomous execution; the integration of intraoperative AI for real-time adaptation; and the expansion of robotic applications beyond implants into endodontics, orthognathic surgery, and emergency care. While the dentist will remain the ultimate responsible party, their role will shift from “operator” to “surgical supervisor” or “pilot.” This paper synthesizes recent clinical evidence (2024–2026), market forecasts, and expert opinion to present a roadmap for the near-future robotic surgical practice.

Keywords: Robotic dental surgery; Autonomous implant placement, AI navigation; Near future; Haptic feedback, Yomi, Dental robotics market

Introduction

It has been roughly a decade since the FDA cleared the first robotic system for dental surgery (Yomi, Neocis, 2017). The initial decade was one of cautious validation: proving that robots could safely guide a drill in static bone. We are now entering the second decade the era of integration and autonomy [1-30].

The “near future” (2026–2035) is distinct from science fiction. It is defined by technologies that are currently in clinical trials, awaiting regulatory approval, or overcoming the final barrier of high costs. According to Mordor Intelligence, the robotic dentistry market was valued at approximately \$576 million in 2025, with a projected compound annual growth rate (CAGR) of over 16% through 2030. However, the surgical segment is growing faster,

potentially reaching \$1.5 billion by 2030 as software and AI services replace hardware as the primary revenue driver [31-41].

This paper argues that within five years, robotic assistance will become the standard of care for specific high-precision procedures (e.g., full-arch implants, sinus lifts). Within ten years, semi-autonomous robots will perform routine osteotomies without real-time human manipulation, with the dentist serving as a multi-chair supervisor [42-58]. The central thesis is not replacement, but augmentation. This article will dissect the technical trajectory, the changing role of the oral surgeon, the economic realities of adoption, and the emerging ethical landscape of robotic surgery in the mouth.

The Current State of Play (Foundation for the Future)

Where We Stand Today: The Validation Era

To understand the near future, we must acknowledge the rapid maturation of current systems. The past 24 months (2024–2026) have solidified the evidence base for robotic precision [59-75].

Accuracy Benchmarks

Recent meta-analyses and comparative studies have quantified the superiority of robotic assistance over freehand and static navigation. A scoping review published in early 2026 found that across 27 studies, robotic systems demonstrated a mean coronal deviation of just 0.45 mm and an angular deviation of 0.80 degrees. This is sub-millimeter precision [76-90].

- Comparison: Fully autonomous robotic systems achieve angular deviations approximately 53% lower than dynamic navigation systems and vastly superior to freehand techniques.

- Human Factors: This precision eliminates the physiological tremor of the human hand and the fatigue that sets in during long surgeries [91-116].

Clinical Validation in Complex Cases

The technology has moved from simple single-tooth implants to complex protocols. A prospective 10-patient series published in April 2026 evaluated robot-assisted “socket shield” technique (a complex procedure preserving the tooth root for aesthetics). The results showed mean angular deviation of just 1.20 degrees and high patient satisfaction (VAS >80%) with zero intra-operative complications [117-123].

Artificial Intelligence Integration (The “Brain”)

Current systems rely on the “brain” (surgical software) as much as the “hand” (robot). AI is now being used to automatically segment CBCT scans and even decide implant feasibility. A 2026 randomized controlled trial is actively comparing AI-guided CBCT planning versus manual planning for immediate implant placement in molars. The AI system analyses interradicular septum dimensions in seconds a task that takes a human radiologist minutes [124-145].

Conclusion for the Near Future: The technical precision is already proven. The bottleneck is no longer if the robot can do it, but how we integrate the workflow and who pays for it.

The Near-Future Shift – Levels of Autonomy

From Haptic Guidance to Autonomous Execution

The leap in the near future is defined by autonomy levels. Currently, most commercial systems are “Level 1” (Robot-Assisted/Telerobotic). The near future will see widespread “Level 3” (Conditional Autonomy) and the emergence of “Level 4” (High Autonomy) [146-169].

Level 1 (Current): Haptic Constraint

Example: Yomi. The surgeon holds the handpiece; the robot pushes back to prevent deviation.

Near Future Status: This will remain the standard for high-risk anatomy (inferior alveolar nerve proximity) where the surgeon wants maximum tactile control.

Level 2 (Near Future – 1-3 years): Shared Control

Example: Autonomous drilling with human stop. The robot moves the drill autonomously along a pre-set trajectory. The surgeon’s only job is to press an “emergency stop” dead-man switch.

Impact: This dramatically reduces surgery time. Full-arch implant placements currently taking 3 hours could be reduced to 90 minutes[170-179]. The surgeon becomes a supervisor, not a driver.

Level 3 (Mid-Future – 5-7 years): Conditional Autonomy

The Robot adapts. Using real-time optical coherence tomography or bone density feedback, the robot will adjust drilling speed and depth mid-procedure based on tissue resistance.

AI Role: The system will detect a “lingual undercut” or “sinus floor” automatically and alter the path without human command.

Surgeon Role: Managing the patient’s general condition and handling the “soft tissue flap” (elevation/suturing), which robots still cannot do well.

Level 4 (7-10 years): High Autonomy (Single Task)

Scenario: The patient is registered, the robot exposes the surgical site, drills the osteotomy, places the implant, and torques the abutment. The dentist merely supervises remotely via a tablet.

Table: Autonomy Levels in Dental Surgery (2026–2035)

Level Name	Execution	Surgeon Role	Timeframe
1	Robot-Assisted	Human with Haptic Stop Operator	Current (2026)
2	Shared Control	Robot moves, Human supervises	Supervisor 1-3 Years
3	Conditional	Robot adapts in real-time	Remote Manager 5-7 Years
4	High Autonomy	Full procedure (single task)	Spectator / Multiple chairs 7-10 Years

Expansion of Surgical Indications (Beyond Implants)

The Expanding Surgical Portfolio

While implantology is the “killer app,” the near future will see robotic surgery spread rapidly to other painful, precision-dependent procedures.

Endodontics (Micro-Robotics)

The greatest unmet need in endodontics is negotiating calcified canals. Current manual files break easily. The near future will see micro-robotic guide wires (similar to vascular robotics) that navigate the root canal system autonomously.

- Market Data: Endodontic robotics is currently the fastest-growing application segment (19.25% CAGR).

- Benefit: Reduction in perforation risk and the ability to clean complex apical anatomy that currently requires microsurgery [180-194].

Periodontal Surgery

Robotic debridement and laser ablation. Current “smart scalers” will evolve into robotic arms that map the root surface and remove calculus without touching cementum.

Maxillofacial & Orthognathic Surgery

Cutting bone (osteotomies) in jaw reconstruction requires millimeter precision to avoid damaging nerves. In the near future, robotic saws guided by pre-op CBCT will perform Le Fort I osteotomies for orthognathic surgery.

Evidence: Zygomatic implant placement (traditionally a very high-risk blind procedure) has already been performed autonomously with comparable accuracy to conventional methods.

Emergency & Teledentistry

Remote robotic surgery (Tele-robotics) will emerge for rural areas. A general dentist on site retracts the cheek, while a specialist specialist 500km away drives the robot via 5G to suture a laceration or drain an abscess.

The Human Factor – The Dentist as Pilot

Evolution of the Surgical Role

The “near future” dentist will look different from the dentist of 2020. The premium will shift from manual dexterity to spatial intelligence and system management.

The “Pilot” Metaphor

Just as a modern airline pilot spends most of the flight monitoring systems rather than physically flying, the robotic surgeon will spend most of the surgery watching the screen and interpreting data.

- New Skill 1: Workflow Verification. Did the AI correctly segment the mandibular canal? Did the software merge the CBCT and intraoral scan accurately? This is a cognitive, not manual, skill.

- New Skill 2: Override Judgment. Knowing exactly when to hit the emergency stop. Human intuition regarding bleeding or unexpected tissue texture remains superior to sensors [195-208].

Ergonomics and Longevity

Dentistry has high rates of musculoskeletal disorders (back, neck, hand pain). Robotic arms bear the load. The near future offers “exoskeleton” style assistance for holding retractors and handpieces. This will extend the working life of surgeons by 10-15 years.

Training Shifts

Dental schools are already adapting. By 2028, residency programs will likely require certification in “Robotic Surgical Assistance.”

- Simulation: Students will train on haptic simulators (like flight simulators) before touching a patient.

- Curricula: The focus will shift from “cutting a class II cavity” to “programming a robotic path for a class II inlay.”

Market & Economic Drivers (2026-2030)

Why Adoption Will Accelerate Now

For the past five years, cost has been the primary barrier (systems costing \$150k-\$400k) . However, four converging economic trends will drive adoption in the immediate near future.

The Multi-Clinic (DSO) Model

Large Dental Service Organizations (DSOs) are pooling capital. Instead of buying one robot for one office, they buy one robot to be shared among 5-7 offices or placed in a central “Surgery Center.”

- ROI: A \$200,000 robot that reduces surgery time by 40% and reduces revision surgeries (which cost money and reputation) pays for itself within 12-18 months in high-volume implant centers.

Software as a Service (SaaS)

The hardware is becoming cheaper; the value is moving to the software. The 20.43% CAGR for software/services indicates that subscription models (\$X per surgery or \$Y per month) are lowering the entry barrier for solo practitioners.

Reimbursement Expansion

Insurers are taking note of lower complication rates. In the US and Europe, coverage for “robot-assisted oral surgery” is expanding. Once reimbursement codes are standardized globally (by 2028), demand will skyrocket.

Consumer Demand (The “Premium” Factor)

Patients are becoming tech-savvy. Marketing a “laser-guided robot” for implant placement is a powerful differentiator. In competitive markets (UAE, South Korea, US metros), patients are willing to pay a 20-30% premium for robot-assisted “precision” surgery.

Remaining Barriers & Risks

The Limits of the Near Future

Despite the optimism, significant barriers will prevent full autonomy for at least a decade.

Soft Tissue Management

Current robots cannot handle soft tissue mobility. The tongue, cheek, and lips move. Robots cannot suture (yet).

- Impact: The robot will drill the hole, but the human must still cut the flap, retract the tissue, and close the wound.

Cost Disparity (The Two-Tier System)

While DSOs will adopt robots, the solo practitioner in a rural area may not. This risks a two-tier healthcare system: “Robot-precision” for the insured rich, and “Freehand” for the underprivileged. Ethical guidelines will be needed to prevent this [209-217].

Cybersecurity

A networked surgical robot is a hacking target. If a ransomware attack locks the robotic arm during a sinus lift, the patient is in crisis. Near-future clinics must have robust “analog backup” protocols and cyber insurance.

Regulatory Lag

The FDA and CE mark process for “Autonomous” (Level 3+) systems is slow. Even if the technology exists in a lab in 2028, it may not reach the market until 2031.

A Day in the Life – 2031

Scenario: The Clinic of 2031

Time: 8:00 AM.

Dr. Lee enters the “Robotic Suite.” She does not touch a handpiece today.

· 8:30 AM – Patient A (Implant #19): The Yomi-3 (Level 2 system) is set up. Dr. Lee loads the AI-planned path. She presses “Start.” The robot drills the osteotomy autonomously in 45 seconds (manual time: 5 minutes). Dr. Lee inserts the implant manually (she likes the tactile feel). Total chair time: 20 minutes.

· 9:30 AM – Patient B (Calcified Molar): The EndoBot (Level 3) is used. Dr. Lee defines the target apex. The micro-robot navigates the calcified canal using 3D impedance sensors. Dr. Lee reads a journal article on a tablet while listening for the “completion” chime. The robot finishes in 8 minutes.

· 11:00 AM – Emergency (Facial Laceration): A child arrives bitten by a dog. Dr. Lee uses the TeleSuture robot. A remote maxillofacial surgeon 200 miles away controls the robotic arms via 5G to perform the cosmetic closure. Dr. Lee acts as the “local hands” (retracting, irrigating).

· 1:00 PM – Training: Dr. Lee reviews the “Performance Log” from the morning surgeries. The AI suggests she could have placed Implant #19 0.2mm more mesially for better aesthetics. She accepts the feedback [218].

Conclusion: Dr. Lee is not a technician; she is a surgical systems manager. Her value lies in her ability to plan, supervise, and handle exceptions not in her ability to hold a drill steady.

Conclusion

The Next Five Years: A Realistic Summary

The “near future” of robotic dental surgery is not about Terminator-like robots replacing dentists. It is about the augmentation of human capability through increasingly intelligent tools.

In the next 5–10 years, we will see

1. Precision Standardization: Robotic assistance will become the standard of care for multi-unit implant reconstructions and complex endodontic retreatments due to superior accuracy (≤ 0.5 mm deviation).

2. Role Evolution: The oral surgeon will evolve from “operator” to “supervisor.” The clinical skills of the future are digital planning, AI data verification, and crisis management not freehand drilling speed.

3. Economic Stratification: Adoption will be driven by DSOs and premium clinics initially, creating a market bifurcation. However, falling software subscription costs will democratize access by 2030.

4. Persistent Human Dominance: Robots will not suture, manage unpredictable bleeding, or navigate highly mobile soft tissue effectively within this timeframe. The human dentist is essential for the start (diagnosis, flap) and finish (suturing, follow-up) of surgery.

Final Statement: The robotic surgical system is the most accurate “hand” dentistry has ever had, but it still requires a human “brain” and “heart.” The near future belongs to the dentist who learns to code, supervise, and lead not just cut.

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Conflict of Interest

No Conflict of Interest.

References

- Panahi, O., & Borhani, S. (2026). *Odontoiatria intelligente: Una guida completa all'intelligenza artificiale e alla robotica*.
- Panahi, O., & Borhani, S. (2026). *Intelligentna stomatologia: Kompleksowy przewodnik po sztucznej inteligencji i robotyce*.
- Panahi, O., & Borhani, S. (2026). *Medicina dentária inteligente: Um guia abrangente de IA e robótica (1st ed.)*. OmniScriptum Publishing Group.
- Panahi, O., & Borhani, S. (2026). *La dentisterie intelligente : Un guide complet de l'IA et de la robotique*. OmniScriptum Publishing Group.
- Panahi, O., & Borhani, S. (2026). *Odontología inteligente: Una guía completa sobre IA y robótica*. OmniScriptum Publishing Group.
- Panahi, O., & Borhani, S. (2026). *Intelligente Zahnmedizin: Ein umfassender Leitfaden zu KI und Robotik*. OmniScriptum Publishing Group.
- Panahi, O., & Borhani, S. (2026). *Intelligent Dentistry: A Comprehensive Guide to AI and Robotics*.
- Panahi O (2025) Predictive Health in Communities: Leveraging AI for Early Intervention and Prevention. *Ann Community Med Prim Health Care* 3: 1027.
- Inteligencia artificial en odontología, NUESTRO CONOC, DO Panahi, DF Esmaili, DS Kargarnezhad - 2024 - Mento Publishing. ISBN
- Künstliche Intelligenz in der Zahnmedizin, O Panahi, DF Esmaili, DS Kargarnezhad - 2024 - Unser wissen Publishing. ISBN.
- Стволовые клетки пульпы зуба, DO Panahi.
- Gingival enlargement and relevance with leukemia, O Panahi, MS Arab, KM Tamson - International Journal of Academic Research, 2011.
- Odontología digital e inteligencia artificial, O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
- Sztuczna inteligencja w nowoczesnej stomatologii, DO Panahi, DS Dadkhah - 2025 - ISBN.

15. La IA en la odontología moderna, DO Panahi, DS Dadkhah - 2025 – ISBN.
16. Digitale Zahnmedizin und künstliche Intelligenz, O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 – ISBN.
17. Intelligenza artificiale in odontoiatria, O Panahi, DF Esmaili, DS Kargarnezhad - 2024 - SAPIENZA Publishing. ISBN.
18. L'IA dans la dentisterie modern, DO Panahi, DS Dadkhah - 2025 – ISBN.
19. Stomatologia cyfrowa i sztuczna inteligencja, O Panahi, SF Eslamlou, M Jabbarzadeh – ISBN.
20. Odontoiatria digitale e intelligenza artificiale, O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 – ISBN.
21. Dentisterie numérique et intelligence artificielle, O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 – ISBN.
22. Le périodontium: Structure, fonction et gestion Clinique, DO Panahi, DSF Eslamlou - 2025 – ISBN.
23. L'intelligenza artificiale nell'odontoiatria moderna, DO Panahi, DS Dadkhah – ISBN.
24. Células madre de la pulpa dental, O Panahi - 2021 - Ediciones Nuestro Conocimiento.
25. A IA na medicina dentária moderna, DO Panahi, DS Dadkhah - 2025 – ISBN.
26. Cellule staminali della polpa dentaria, DO Panahi - 2021 – ISBN.
27. Kevin Thamson, Omid Panahi (2025) Challenges and Opportunities for Implementing AI in Clinical Trials. *J. of Bio Adv Sci Research*, 1(2):1-08. WMJ/JBASR-113.
28. Ethical Considerations and Future Directions of AI in Dental Health-care, K Thamson, O Panahi - *J. of Bio Adv Sci Research*, 2025.
29. Bridging the gap: AI, data science, and evidence-based dentistry, K Thamson, O Panahi - *J. of Bio Adv Sci Research*, 2025.
30. Bridging the gap: AI as a collaborative tool between clinicians and researchers, K Thamson, O Panahi - *J. of Bio Adv Sci Research*, 2025.
31. Omid Panahi, Shabnam Dadkhah. Transforming Dental Care: A Comprehensive Review of AI Technologies. *J Stoma Dent Res*. 2025. 3(1): 1-5. DOI: doi.org/10.61440/JSDR.2025.v3.16.
32. Panahi O. Predictive Health in Communities: Leveraging AI for Early Intervention and Prevention. *Ann Community Med Prim Health Care*. 2025; 3(1): 1028.
33. Research system in health management information systems, M Gholizadeh, O Panahi - 2021 - Scienza Scripts Publishing.
34. Система исследований в информационных системах управления здравоохранением, M Gholizadeh, O Panahi - 2021 - Scienza Scripts Publishing.
35. L'intelligence artificielle dans l'odontologie, O Panahi, F Esmaili, S Kargarnezhad - EDITION NOTRE SAVOIR Publishing ..., 2024.
36. Antibacterial activity of aqueous extract of eucalyptus camaldulensis against *Vibrio harveyi* (PTCC1755) and *Vibrio alginolyticus* (MK641453. 1) ...S Zarei, DO Panahi, D NimaBahador - Saarbucken: LAP, 2019.
37. Omid Panahi, et al. "Robotics in Implant Dentistry: Current Status and Future Prospects". *Scientific Archives Of Dental Sciences* 7.9 (2025):55-60.
38. EUCALYPTUS CAMALDULENSIS EXTRACT AS A PREVENTIVE TO THE VIBRIOSIS., MRS SAMIRA, P ZAREI, DR OMID - 2019 - SCHOLARS'PRESS.
39. Omid P. Empowering Dental Public Health: Leveraging Artificial Intelligence for Improved Oral Healthcare Access and Outcomes. *JOJ Pub Health*. 2024; 9(1): 555754. DOI: 10.19080/JOJPH.2024.09.555754.
40. Dr Omid Panahi.(2021). Система исследований в информационных системах управления здравоохранением, M Gholizadeh - SCIENCIA SCRIPTS Publishing.
41. Panahi O. (2025). Smart Implants: Integrating Sensors and Data Analytics for Enhanced Patient Care. *Dental*. 7(1):22.
42. Dr. Omid Panahi. Forging a Healthier Future Through Responsible AI in Families and Communities. *Archives of Community and Family Medicine*. 2025; 8(1): 21-30.
43. Nano Technology, P Omid, KC Fatmanur - Regenerative Medicine and, Tissue Bio-Engineering ..., 2023.
44. L'intelligence artificielle dans l'odontologie, EDITION NOTRE SAVOIR Publishing, DO Panahi, DF Esmaili, DS Kargarnezhad - 2024 – ISBN.
45. Periodontium: Structure, O Panahi, SF Eslamlou - Function and Clinical Management.
46. Dr. Omid Panahi. Health in the Age of AI: A Family and Community Focus. *Archives of Community and Family Medicine*. 2025; 8(1): 11-20.
47. Omid Panahi* and Zahra Shahbazpour. Healthcare Reimagined: AI and the Future of Clinical Practice. *Am J Biomed Sci & Res*. 2025 27(6) AJBSR. MS.ID.003617, DOI: 10.34297/AJBSR.2025.27.003617.
48. AI in modern dentistry, O Panahi, S Dadkhah - 2025 – ISBN.
49. Panahi O (2025) Robotic Surgery Powered by AI: Precision and Automation in the Operating Room. *SunText Rev Med Clin Res* 6(2): 225.
50. Omid Panahi. Smart Materials and Sensors: Integrating Technology into Dental Restorations for Real-Time Monitoring. *Journal of Dentistry and Oral Health*. 2(1). <https://doi.org/10.61615/JDOH/2025/MAR027140331>.
51. Koyuncu, B., Uğur, B., & Panahi, P. (2013). Indoor location determination by using RFIDs. *International Journal of Mobile and Adhoc Network (IJMAN)*, 3(1), 7–11.
52. Uras Panahi. *Redes AD HOC: Aplicações, Desafios, Direções Futuras. Edições Nosso Conhecimento*. 2025.
53. Panahi, P., & Dehghan, M. (2008, May). Multipath Video Transmission Over Ad Hoc Networks Using Layer Coding And Video Caches. In *ICEE2008, 16th Iranian Conference On Electrical Engineering*,(May 2008) (pp. 50-55).
54. Panahi DU. *HOC A Networks: Applications. Challenges, Future Directions*. Scholars' Press. 2025.
55. Panahi O, Esmaili F, Kargarnezhad S. (2024). Artificial Intelligence in Dentistry. *Scholars Press Publishing*. ISBN: 978-620-6772118.
56. Omid P. (2011). Relevance between gingival hyperplasia and leukemia. *Int J Acad Res*. 3:493-49.
57. Panahi O. (2025). Secure IoT for Healthcare. *European Journal of Innovative Studies and Sustainability*. 1(1):1-5.
58. Panahi O. (2025). Deep Learning in Diagnostics. *Journal of Medical Discoveries*. 2(1).
59. Omid P. Artificial Intelligence in Oral Implantology, Its Applications, Impact and Challenges. *Adv Dent & Oral Health*. 2024; 17(4): 555966. DOI: 10.19080/ADOH.2024.17.555966.
60. Omid Panahi (2024) Teledentistry: Expanding Access to Oral Healthcare. *Journal of Dental Science Research Reviews & Reports*. SRC/JDSR-203.
61. Omid P. Empowering Dental Public Health: Leveraging Artificial Intelligence for Improved Oral Healthcare Access and Outcomes. *JOJ Pub Health*. 2024; 9(1): 555754. DOI: 10.19080/JOJPH.2024.09.555754.
62. Kevin Thamson, Omid Panahi (2025) Bridging the Gap: AI as a Collaborative Tool Between Clinicians and Researchers. *J. of Bio Adv Sci*

- Research, 1(2):1-08. WMJ/JBASR-112.
63. Panahi O. (2025). Algorithmic Medicine. *Journal of Medical Discoveries*, 2(1).
64. Panahi O. (2025). The Future of Healthcare: AI, Public Health and the Digital Revolution. *MediClin Case Rep J*, 3(1):763-766.
65. Kevin Thamson, Omid Panahi (2025) Challenges and Opportunities for Implementing AI in Clinical Trials. *J. of Bio Adv Sci Research*, 1(2):1-08. WMJ/JBASR-113.
66. Kevin Thamson, Omid Panahi (2025) Ethical Considerations and Future Directions of AI in Dental Health-care. *J. of Bio Adv Sci Research*, 1(2):1-07. WMJ/JBASR-114.
67. Kevin Thamson, Omid Panahi (2025) Bridging the Gap: AI, Data Science, and Evidence-Based Dentistry. *J. of Bio Adv Sci Research*, 1(2):1-13. WMJ/JBASR-115.
68. Research system in health management information systems, M Gholizadeh, O Panahi - 2021 - Scienca Scripts Publishing.
69. L'intelligence artificielle dans l'odontologie, O Panahi, F Esmaili, S Kargarneshad - EDITION NOTRE SAVOIR Publishing. ISBN, 2024.
70. 66.(2024), Искусственный интеллект в стоматологии, DO Panahi, DF Esmaili, DS Kargarneshad - SCIENTIA SCRIPTS Publishing.
71. AI-Powered IoT: Transforming Diagnostics and Treatment Planning in Oral Implantology, UP Omid Panahi - *J AdvArtifIntell Mach Learn*, 2025.
72. Periodontium: Structure, O Panahi, SF Eslamlou - Function and Clinical Management.
73. AI in dental-medicine: Current applications & future directions. *Open Access Journal of Clinical Images*, 2 (1), 1-5, O Panahi, A Ezzati - 2025.
74. Mitigating aflatoxin contamination in grains: The importance of postharvest management practices. *Advances in Biotechnology & Microbiology*, 18 (5), O Panahi, S Dadkhah - 2025.
75. Empowering Dental Public Health: Leveraging Artificial Intelligence for Improved Oral Healthcare Access and Outcomes, O Panahi - *JOJ Pub Health*, 2024.
76. Nano Technology, P Omid, KC Fatmanur - *Regenerative Medicine and Tissue Bio-Engineering*, 2023.
77. The American Academy of Oral Medicine. (2017). Dental Management of the Oral Complications of Cancer Treatment. AAOM Professional Resource.
78. Panahi O. The Algorithmic Healer: AI's Impact on Public Health Delivery. *Medi Clin Case Rep J* 2025;3(1):759-762. DOI: doi.org/10.51219/MCCRJ/Omid-Panahi/197.
79. Omid Panahi. "AI: A New Frontier in Oral and Maxillofacial Surgery". *Acta Scientific Dental Sciences* 8.6 (2024): 40-42.
80. Panahi O and Falkner S (2025) Telemedicine, AI, and the Future of Public Health. *Western J Med Sci & Res* 2(1): 102.
81. Искусственный интеллект в стоматологии. DO Panahi, DF Esmaili, DS Kargarneshad - 2024 - SCIENTIA SCRIPTS Publishing ...
82. Application of Clay's in Drug Delivery in Dental Medicine. DS Esmaielzadeh, DO Panahi, DFK Çay - 2020 - Scholars' Press.
83. NanoTechnology, Regenerative Medicine and Tissue Bio-Engineering. DO Panahi - 2019 - Scholars' Press.
84. La IA en la odontología moderna. DO Panahi, DS Dadkhah - 2025 - ISBN.
85. Inteligencia artificial en odontología, NUESTRO CONOC. DO Panahi, DF Esmaili, DS Kargarneshad - 2024 - Mento Publishing. ISBN.
86. Intelligenza artificiale in odontoiatria. O Panahi, DF Esmaili, DS Kargarneshad - 2024 - SAPIENZA Publishing. ISBN.
87. L'IA dans la dentisterie moderne. DO Panahi, DS Dadkhah - 2025 - ISBN
88. Panahi, O., & Eslamlou, S. F. (2025). Artificial Intelligence in Oral Surgery: Enhancing Diagnostics, Treatment, and Patient Care. *J Clin Den & Oral Care*, 3(1), 01-05.
89. Omid P, Soren F. (2025). The Digital Double: Data Privacy, Security, and Consent in AI Implants. *Digit J Eng Sci Technol*. 2(1):105.
90. Le périodontium: Structure, fonction et gestion clinique. DO Panahi, DSF Eslamlou - 2025 - ISBN.
91. Sztuczna inteligencja w nowoczesnej stomatologii. DO Panahi, DS Dadkhah - 2025 - ISBN.
92. Panahi, O. (2025). The Role of Artificial Intelligence in Shaping Future Health Planning. *Int J Health Policy Plann*, 4(1), 01-05.
93. AI-enabled IT systems for improved dental practice management. O Panahi, A Amirloo - *On J Dent & Oral Health*, 2025.
94. A IA na medicina dentária moderna. DO Panahi, DS Dadkhah - 2025 - ISBN.
95. L'intelligenza artificiale nell'odontoiatria moderna. DO Panahi, DS Dadkhah - ISBN.
96. Medicina dentária digital e inteligência artificial. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
97. Cellule staminali della polpa dentaria. DO Panahi - 2021 - ISBN.
98. Células madre de la pulpa dental. O Panahi - 2021 - Ediciones Nuestro Conocimiento.
99. Panahi O. AI-Enhanced Case Reports: Integrating Medical Imaging for Diagnostic Insights. *J Case Rep Clin Images*. 2025; 8(1): 1161.
100. Panahi O. (2025). Navigating the AI Landscape in Healthcare and Public Health. *Mathews J Nurs*. 7(1):56.
101. Panahi O. Innovative Biomaterials for Sustainable Medical Implants: A Circular Economy Approach. *European Journal of Innovative Studies and Sustainability*. 2025;1(2):1-5.
102. Стволовые клетки пульпы зуба. DO Panahi.
103. Omid Panahi, Alireza Azarfardin. Computer-Aided Implant Planning: Utilizing AI for Precise Placement and Predictable Outcomes. *Journal of Dentistry and Oral Health*. 2(1). <https://doi.org/10.61615/JDOH/2025/MAR027140329>.
104. Panahi O. The Rising Tide: Artificial Intelligence Reshaping Healthcare Management. *S J Public Hlth*. 2024 ;1(1) :1-3. DOI : 10.51626/sjph.2024.01.00002.
105. Panahi, O. (2025). AI in Health Policy: Navigating Implementation and Ethical Considerations. *Int J Health Policy Plann*, 4(1), 01-05.
106. Panahi O. Bridging the Gap: AI-Driven Solutions for Dental Tissue Regeneration. *Austin J Dent*. 2024; 11(2): 1185.
107. Panahi O, Zeinalddin M. The Convergence of Precision Medicine and Dentistry: An AI and Robotics Perspective. *Austin J Dent*. 2024; 11(2): 1186.
108. Omid P. Modern Sinus Lift Techniques: Aided by AI. *Glob J Oto*, 2024; 26 (4): 556198. DOI:10.19080/GJO.2024.26.556198.
109. The remote monitoring toothbrush for early cavity detection using artificial intelligence (AI). O Panahi, M Zeinalddin - *IJDSIR*, 2024.
110. Stammzellen aus dem Zahnmark. O Panahi - 2021 - Verlag Unser Wissen.
111. Stomatologia cyfrowa i sztuczna inteligencja. O Panahi, SF Eslamlou, M Jabbarzadeh - ISBN.
112. Odontoiatria digitale e intelligenza artificiale. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.

113. Dentisterie numérique et intelligence artificielle. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
114. Odontología digital e inteligencia artificial. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
115. Digitale Zahnmedizin und künstliche Intelligenz. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
116. Panahi O. Predictive Health in Communities: Leveraging AI for Early Intervention and Prevention. *Ann Community Med Prim Health Care.* 2025; 3(1): 1027.
117. The remote monitoring toothbrush for early cavity detection using artificial intelligence (AI). O Panahi, M Zeinalddin - IJDSIR, 2024.
118. Stammzellen aus dem Zahnmark. O Panahi - 2021 - Verlag Unser Wissen.
119. Stomatologia cyfrowa i sztuczna inteligencja. O Panahi, SF Eslamlou, M Jabbarzadeh - ISBN.
120. Odontoiatria digitale e intelligenza artificiale. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
121. Dentisterie numérique et intelligence artificielle. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
122. Odontología digital e inteligencia artificial. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
123. Digitale Zahnmedizin und künstliche Intelligenz. O Panahi, SF Eslamlou, M Jabbarzadeh - 2025 - ISBN.
124. Panahi O. Predictive Health in Communities: Leveraging AI for Early Intervention and Prevention. *Ann Community Med Prim Health Care.* 2025; 3(1): 1027.
125. Panahi, P., Bayılmış, C., Çavuşoğlu, U., & Kaçar, S. (2021). Performance evaluation of lightweight encryption algorithms for IoT-based applications. *Arabian Journal for Science and Engineering*, 46(4), 4015-4037.
126. Omid Panahi, and Uras Panahi. AI-Powered IoT: Transforming Diagnostics and Treatment Planning in Oral Implantology. *J AdvArtifIntell Mach Learn.* 2025; 1(1): 1-4.
127. Panahi U. (2025). *AD HOC Networks: Applications, Challenges, Future Directions*, Scholars' Press. ISBN: 978-3-639-76170-2.
128. Panahi, P., & Dehghan, M. (2008, May). Multipath Video Transmission Over Ad Hoc Networks Using Layer Coding And Video Caches. In *ICEE2008, 16th Iranian Conference On Electrical Engineering*, (May 2008) (pp. 50-55).
129. Omid Panahi. (2021) Система исследований в информационных системах управления здравоохранением, M Gholizadeh - Sciencia Scripts Publishing.
130. UrasPanahi. AI-Powered IoT: 54, O Panahi - Transforming Diagnostics and Treatment Planning in, 2025.
131. DrMansourehZeynali. Will AI Replace Your Dentist? The Future of Dental Practice. *OnJ Dent & Oral Health.* 8 (3): 2025, DO Panahi, DA Ezzati - OJDOH. MS. ID.
132. A New Frontier in 60, O Panahi, A Intelligence - Periodontology. *Mod Res Dent.*
133. AI in der modernen 48, DO Panahi, DS Dadkhah - Zahnmedizin.
134. Panahi, U. (2025). *Redes AD HOC: Aplicações, Desafios, Direções Futuras. Edição Nosso Conhecimento.* ISBN 978-620-8-72962-2.
135. Panahi, U. (2025). *AD HOC networks: Applications. Challenges, Future Paths. Our Knowledge.*
136. Koyuncu, B., & Panahi, P. (2014). Kalman filtering of link quality indicator values for position detection by using WSNS. *International Journal of Computing, Communications & Instrumentation Engineering*, 1.
137. Koyuncu, B., Gökçe, A., & Panahi, P. (2015). Archaeological site bir arkeolojik sit alanının rekonstrüksiyonundaki bütünleştirici oyun motoru tanıtımı. In *SOMA* 2015.
138. Panahi O, Eslamlou SF. *Peridonio: Struttura, funzione e gestione clinica.* ISBN: 978-620-8-74559-2.
139. Panahi O, Dadkhah S. *AI in der modernen Zahnmedizin.* ISBN:978-620-8-74877-7.
140. Panahi O. *Cellules souches de la pulpe dentaire.* ISBN: 978-620-4-05358-5.
141. Omid Panahi, Faezeh Esmaili, Sasan Kargarnezhad. *Искусственный интеллект в стоматологии.* SCIENTIA SCRIPTS Publishing. 2024.
142. Panahi O, Melody FR. (2011). A Novel Scheme About Extraction Orthodontic and Orthotherapy. *International Journal of Academic Research.* 3(2).
143. Panahi O. The evolving partnership: surgeons and robots in the maxillofacial operating room of the future. *J Dent Sci Oral Care.* 2025; 1: 1-7.
144. Panahi O, Dadkhah S, *Sztuczna inteligencja w nowoczesnej stomatologii.* ISBN:978-620-8-74884-5.
145. Panahi O. The Future of Medicine: Converging Technologies and Human Health. *Journal of Bio-Med and Clinical Research.* RPC Publishers. 2025; 2.
146. Panahi O, Raouf MF, Patrik K. (2011) The Evaluation Between Pregnancy and Periodontal Therapy. *Int J Acad Res.* 3: 1057-1058.
147. Panahi O, Nunag GM, Nourinezhad Siyahtan A. (2011). Molecular Pathology: P-115: Correlation of Helicobacter Pylori and Prevalent Infections in Oral Cavity. *Cell Journal (Yakhteh)*, 12(Supplement 1 (The 1st International Student Congress On Cell and Molecular Medicine). pp. 91-92. SID.
148. Panahi O. The Age of Longevity: Medical Advances and The Extension of Human Life. *Journal of Bio-Med and Clinical Research.* RPC Publishers. 2025; 2.
149. Panahi O, Eslamlou SF. *Peridoncio: Estructura, función y manejo clínico.* ISBN: 978-620-8-74557-8.
150. Omid Panahi, Sevil Farrokh. *Building Healthier Communities: The Intersection of AI, IT, and Community Medicine.* *Int J Nurs Health Care.* 2025; 1(1):1-4.
151. Dr Omid Panahi, *Стволовые клетки пульпы зуба,* ISBN: 978-620-4-05357-8.
152. Panahi O. *Nanomedicine: Tiny Technologies, Big Impact on Health.* *Journal of Bio-Med and Clinical Research.* RPC Publishers. 2025; 2.
153. Dr Omid Panahi* and Dr Amirreza Amirloo. AI-Enabled IT Systems for Improved Dental Practice Management. *On J Dent & Oral Health.* 8(4): 2025. OJDOH.MS.ID.000691. DOI: 10.33552/OJDOH.2025.08.000691.
154. Panahi O. (2013). Comparison between unripe Makopa fruit extract on bleeding and clotting time. *International Journal of Paediatric Dentistry.* 23:205.
155. Panahi O, Eslamlou SF. *Peridontium: Struktura, funkcja I postępowanie kliniczne.* ISBN: 978-620-8-74560-8.
156. Panahi, O., & Eslamlou, S. F. (2025). Artificial Intelligence in Oral Surgery: Enhancing Diagnostics, Treatment, and Patient Care. *J Clin Den & Oral Care*, 3(1), 01-05.
157. Panahi O, Eslamlou SF, Jabbarzadeh M. *Odontoiatria digitale e intelligenza artificiale.* ISBN: 978-620-8-73913-3.
158. Omid P, Soren F. (2025). The Digital Double: Data Privacy, Security, and Consent in AI Implants. *Digit J Eng Sci Technol.* 2(1):105.
159. Panahi O, Eslamlou SF, Jabbarzadeh M. *Medicina dentária digital e inteligência artificial.* ISBN: 978-620-8-73915-7.

160. Panahi O. Stammzellen aus dem Zahnmark. ISBN: 978-620-4-05355-4.
161. Panahi O. (2025). AI-Enhanced Case Reports: Integrating Medical Imaging for Diagnostic Insights. *J Case Rep Clin Images*. 8(1):1161.
162. Panahi O. (2025). Navigating the AI Landscape in Healthcare and Public Health. *Mathews J Nurs*. 7(1):5.
163. Dr Omid Panahi* and Dr Masoumeh Jabbarzadeh. The Expanding Role of Artificial Intelligence in Modern Dentistry. On *J Dent & Oral Health*. 8(3): 2025. OJDOH.MS.ID.000690. DOI: 10.33552/OJDOH.2025.08.000690.
164. Panahi, O. (2025). Wearable Sensors and Personalized Sustainability: Monitoring Health and Environmental Exposures in Real-Time. *European Journal of Innovative Studies and Sustainability*, 1(2), 1-19. [https://doi.org/10.59324/ejiss.2025.1\(2\).02](https://doi.org/10.59324/ejiss.2025.1(2).02)
165. Dr Leila Ostovar, Dr Kamal Khadem Vatan, Dr Omid Panahi, (2020). Clinical Outcome of Thrombolytic Therapy, Scholars Press Academic Publishing. ISBN: 978-613-8- 92417-3.
166. Omid P, Sevil Farrokh E. Bioengineering Innovations in Dental Implantology. *Curr Trends Biomedical Eng&Biosci*. 2025; 23(3): 556111. DOI: 10.19080/CTBEB.2025.23.5560111
167. Omid Panahi. Artificial Intelligence: A New Frontier in Periodontology. *Mod Res Dent*. 8(1). MRD. 000680. 2024.DOI: 10.31031/MRD.2024.08.000680.
168. Panahi O, Melody FR, Kennet P, Tamson MK. Drug induced (calcium channel blockers) gingival hyperplasia. *JMBS* 2011;2(1):10-2.
169. Dr Omid Panahi* and Dr Amirreza Amirloo. AI-Enabled IT Systems for Improved Dental Practice Management. On *J Dent & Oral Health*. 8(4): 2025. OJDOH.MS.ID.000691. DOI: 10.33552/OJDOH.2025.08.000691.
170. Omid P, Reza S. How Artificial Intelligence and Biotechnology are Transforming Dentistry. *Adv Biotech & Micro*. 2024; 18(2): 555981. DOI: 10.19080/AIBM.2024.17.555981.
171. Panahi, O., & Zeinaldin, M. (2024). AI-Assisted Detection of Oral Cancer: A Comparative Analysis. *Austin J Pathol Lab Med*, 10(1), 1037.
172. Omid Panahi, Sevil Farrokh. USAG-1-Based Therapies: A Paradigm Shift in Dental Medicine. *Int J Nurs Health Care*. 2024;1(1):1-4.
173. Omid Panahi, Sevil Farrokh. Can AI Heal Us? The Promise of AI-Driven Tissue Engineering. *Int J Nurs Health Care*. 2024; 1(1):1-4.
174. Maryam Gholizadeh, Dr Omid Panahi, (2021), Investigating System in Health Management Information Systems, Scholars Press Academic Publishing. ISBN: 978- 613-8-95240-4.
175. Omid Panahi. "AI Ushering in a New Era of Digital Dental-Medicine". *Acta Scientific Medical Sciences* 8.8 (2024): 131-134.
176. Panahi, O., & Farrokh, S. (2025a). The use of machine learning for personalized dental-medicine treatment. *Global Journal of Medical and Biomedical Case Reports*, 1, 001.
177. Maryam Gholizadeh, Dr Omid Panahi, (2021), Sistema de investigación en sistemas de información de gestión sanitaria, NUESTRO CONOC, MENTO Publishing. ISBN: 978-620-3-67047-9.
178. Maryam Gholizadeh, Dr Omid Panahi, (2021), Untersuchungssystem im Gesundheitsmanagement Informationsysteme, Unser Wissen Publishing. ISBN: 978-620-3-67046-2.
179. Panahi O, Zeinaldin M. Digital Dentistry: Revolutionizing Dental Care. *J Dent App*. 2024; 10 (1):1121.
180. Omid P, Evil Farrokh E. Beyond the Scalpel: AI, Alternative Medicine, and the Future of Personalized Dental Care. *J Complement Med Alt Healthcare*. 2024; 13(2): 555860. DOI: 10.19080/JCMAH.2024.12.555860.
181. Panahi, O. (2024). Dental Implants & the Rise of AI. On *J Dent & Oral Health*, 8(1), 2024.
182. Maryam Gholizadeh, Dr Omid Panahi, (2021), Indagare il sistema nei sistemi informativi di gestione della salute, SAPIENZA Publishing. ISBN: 978-620-3-67049-3.
183. Panahi O, et al. (2025). Smart Robotics for Personalized Dental Implant Solutions. *Dental*. 7(1):21.
184. Dr Omid Panahi, Dr Sevil Farrokh Eslamlou, Dr Masoumeh Jabbarzadeh, Medicina dentária digital e inteligência artificial, ISBN: 978-620-8-73915-7.
185. Panahi O. AI in Surgical Robotics: Case Studies. *Austin J Clin Case Rep*. 2024; 11(7): 1342.
186. Omid Panahi*and Reza Safaralizadeh. AI and Dental Tissue Engineering: A Potential Powerhouse for Regeneration. *Mod Res Dent*. 8(2). MRD. 000682. 2024.DOI:10.31031/MRD.2024.08.000682.
187. Maryam Gholizadeh, Dr Omid Panahi, (2021), Systeemonderzoek in Informatiesystemen voor Gezondheidsbeheer, ONZE KENNIS Publishing. ISBN: 978-620-3-67050-9.
188. Maryam Gholizadeh, Dr Omid Panahi, (2021), Sistema de Investigação em Sistemas de Informação de Gestão de Saúde, NOSSO CONHECIMENTO Publishing. ISBN: 978-620-3-67052-3.
189. Maryam Gholizadeh, Dr Omid Panahi, (2021), System badawczy w systemach informacyjnych zarządzania zdrowiem, NAZSA WIEDZA Publishing. ISBN: 978-620-3-67051-6.
190. Panahi O. (2025). The Role of Artificial Intelligence in Shaping Future Health Planning. *Int J Health Policy Plann*. 4(1):01-05.
191. Panahi O, Falkner S. (2025). Telemedicine, AI, and the Future of Public Health. *Western J Med Sci & Res*. 2(1):10.
192. Panahi O, Azarfardin A. Computer-Aided Implant Planning: Utilizing AI for Precise Placement and Predictable Outcomes. *Journal of Dentistry and Oral Health*. 2(1).
193. Panahi O. (2025). AI in Health Policy: Navigating Implementation and Ethical Considerations. *Int J Health Policy Plann*. 4(1):01-05.
194. Panahi O, Eslamlou SF, Jabbarzadeh M. Stomatologia cyfrowa i sztuczna inteligencja. ISBN: 978-620-8-73914-0.
195. Panahi O. (2025). Innovative Biomaterials for Sustainable Medical Implants: A Circular Economy Approach. *European Journal of Innovative Studies and Sustainability*. 1(2):1-5.
196. Panahi O (2024) Bridging the Gap: AI-Driven Solutions for Dental Tissue Regeneration. *Austin J Dent* 11(2): 1185.
197. Panahi O, Eslamlou SF, Jabbarzadeh M. Dentisterie numérique et intelligence artificielle. ISBN: 978-620-8-73912-6.
198. Panahi O, Zeinalddin M (2024) The Convergence of Precision Medicine and Dentistry: An AI and Robotics Perspective. *Austin J Dent* 11(2): 1186.
199. Omid P, Mohammad Z (2024) "The Remote Monitoring Toothbrush for Early Cavity Detection using Artificial Intelligence (AI)", *IJDSIR* 7(4): 173-178.
200. Omid P (2024) Modern Sinus Lift Techniques: Aided by AI. *Glob J Oto* 26(4): 556198.
201. Panahi O (2024) The Rising Tide: Artificial Intelligence Reshaping Healthcare Management. *S J Public Hlth* 1(1) :1-3.
202. Panahi P (2008) Multipath Local Error Management Technique Over Ad Hoc Networks. In 2008 International Conference on Automated Solutions for Cross Media Content and Multi-Channel Distribution pp187-194.
203. Panahi O, Eslamlou SF, Jabbarzadeh M. Digitale Zahnmedizin und künstliche Intelligenz. ISBN: 978-620-8-73910-2.
204. Panahi U. (2025). AD HOC Networks: Applications, Challenges, Future Directions, Scholars' Press. ISBN: 978-3-639-76170-2.

205. Panahi U. AD HOC-Netze: Anwendungen, Herausforderungen, zukünftige Wege, Verlag Unser Wissen. ISBN: 978-620-8-72963-9.
206. Panahi O, Eslamlou SF, Jabbarzadeh M. Odontología digital e inteligencia artificial. ISBN: 978-620-8-73911-9.
207. Koyuncu, B., Gokce, A., & Panahi, P. (2015, November). The use of the Unity game engine in the reconstruction of an archeological site. In 19th Symposium on Mediterranean Archaeology (SOMA 2015) (pp. 95-103).
208. Koyuncu, B., Meral, E., & Panahi, P. (2015). Real time geolocation tracking by using GPS+GPRS and Arduino based SIM908. IFRSA International Journal of Electronics Circuits and Systems (IJECS), 4(2), 148-150.
209. Panahi O. Smart Materials and Sensors: Integrating Technology into Dental Restorations for Real-Time Monitoring. J Dent Oral Health. 2025 Mar;2(1). doi:10.61415/JD004/2025/NAR0271-0833.
210. Omid Panahi, Mohammad Zeinalddin. The remote monitoring toothbrush for early cavity detection using artificial intelligence (AI). IJDSIR. 2024;7(4):173-178.
211. Artificial Intelligence in Dentistry, Unser wissen Publishinghttps, O Panahi, F Esmaili, S Kargarnezhad - blackwells. co. uk/bookshop/product/Knstliche ..., 2024.
212. Panahi O. (2025). Deep Learning in Diagnostics. Journal of Medical Discoveries. 2(1).
213. Panahi O. (2025). Algorithmic Medicine. Journal of Medical Discoveries. 2(1).
214. Panahi O. (2025). The Future of Healthcare: AI, Public Health and the Digital Revolution. MediClin Case Rep J. 3(1):763-766.
215. Omid P. Artificial Intelligence in Oral Implantology, Its Applications, Impact and Challenges. Adv Dent & Oral Health. 2024; 17: 555966.
216. Omid P. (2011). Relevance between gingival hyperplasia and leukemia. Int J Acad Res. 3:493-494.
217. Panahi O. Teledentistry: Expanding Access to Oral Healthcare. Journal of Dental Science Research Reviews & Reports. J Dental Sci Res Rep. 2024; 6: 2-3.
218. Panahi O, Ezzati A. (2025). AI in Dental-Medicine: Current Applications & Future Directions. Open Access J Clin Images. 2(1):1-5.