



A Scoping Review of Highly Cited Published Articles in the Iranian Endodontic Journal: A Reflection of Trends in Endodontic Research

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Introduction: Highly cited published articles play a critical role in shaping clinical practice, research directions, and advancements in a specific field of science. The current comprehensive scoping review aimed to provide an overview of highly cited articles published in the “Iranian Endodontic Journal” (*IEJ*), based on the *IEJ*'s H-index (=29); highlighting their key findings and prominent implications in the field of endodontics. **Materials and Methods:** A systematic search was conducted in Scopus database to identify the top 29 highly cited published articles. The articles were selected based on their citation count (h-index); reflecting their impact and influence within the scientific community. Data extraction was performed to gather relevant information; including authors, titles, publication years, and the main topic(s) of each article. **Results:** The selected highly cited published articles covered a broad range of endodontic topics; demonstrating the diversity and depth of research in the field. Key findings include significant contributions in vital pulp therapy, antimicrobial agents, root canal disinfection, regenerative techniques, cone-beam computed tomography applications, and intracanal medicaments. The distribution of research areas reflects the importance of evidence-based practice in clinical decision-making and patient care. **Conclusions:** These highly cited published articles have shown to have substantial impact on the field of endodontics. They have influenced clinical practice, guided research directions, and have improved patient care. The summary of key findings from each topic and the number of articles related to each area can provide readers with valuable insights into the distribution of research areas, and the significance of contributions made by the aforementioned highly cited published articles.

Keywords: Iranian Endodontic Journal; Highly cited published articles; Endodontics; Vital pulp therapy; Cone-beam computed tomography; Intracanal medicaments; Regenerative techniques

Introduction

Endodontics plays an important role in preserving natural dentition and maintaining oral health. Over the years, significant advancements have been made in endodontic research; leading to the development of new treatment modalities, materials and techniques [1, 2].

The Iranian Endodontic Journal (*IEJ*) is a reputable scholarly publication that serves as a platform for disseminating high-quality research in the field of endodontics [3]. The number of citations received by published articles could be considered an indicator of the journal's impact and influence within the scientific community. Examining the highly cited articles can provide insights into the trends of research and areas of focus

within the field of endodontics [4]. In addition, the highly cited published articles have made substantial contributions to the field through addressing important research questions and presenting novel findings. These articles have been widely recognized and cited by researchers and clinicians; indicating the impact and relevance of such articles in the corresponding field [5].

Scientometric and Bibliometric analyses provide a comprehensive overview of the most influential articles in a specific field; contributing to the understanding of research trends and the identification of key areas of focus [6, 7]. Not only do the findings of above-mentioned reviews serve as a valuable resource for researchers and clinicians, but they highlight the progress made in endodontic research within the current research landscape [8, 9]. The identified key areas of interest and

emerging trends will provide insights, and in many instances new perceptions, into the direction of future research endeavours, and underscore the importance of evidence-based practice in clinical decision-making [10, 11].

In the presented scoping review, it was aimed to explore the highly cited articles published in *IEJ* and examine the research topics that have garnered significant attention from the scientific community. By analyzing the stated articles, valuable insights into the current state of endodontic research can be gained and modern-day areas of interest may be identified.

Materials and Methods

Since the current scoping review was based on previously published articles, no ethical approval was required.

Study Selection and Data Extraction: To identify highly cited articles published in *IEJ*, the systematic search was conducted and limited to Scopus database. The search strategy involved the following steps:

- Accessing the Scopus database and entering the search query: ISSN; 1735-7497.
- Sorting the search results in descending order based on citation count (h-index) to identify the most highly cited published articles.
- Selecting the first 29 articles from the search results, corresponding to the h-index of the journal, for further analysis and review.
- Extracting data and Classifying articles: Relevant information was extracted from each selected article; including the authors, title, year of publication, and key findings. The articles were then classified based on their research focus and topic.

Data Analysis and Synthesis: The extracted data were analyzed and synthesized to provide a comprehensive overview of the selected articles. Additionally, the key findings were organized and presented in a structured pattern to highlight the significant contributions of each article in the field of endodontics.

Results

In the present scoping review, the 29 highly cited articles published in *IEJ*, that have made significant contributions to the field of endodontics, were analysed [12]. These articles have covered a wide range of research topics; providing valuable insights into various aspects of endodontic practice and research (Appendix 1).

The selected articles encompassed vital pulp therapy (VPT), antimicrobial agents, root canal disinfection, regenerative

techniques, cone-beam computed tomography (CBCT) applications, intracanal medicaments, dental materials, and more. The notable findings from these articles are summarized below, along with their corresponding in-text citations:

1. Advances in VPT techniques for permanent teeth [13, 14].
2. The review on antibacterial agents used in endodontic treatment [15].
3. Antimicrobial efficacy of mineral trioxide aggregate (MTA) with and without silver nanoparticles [16].
4. The applications of CBCT in endodontics: A review of literature [17].
5. Outcomes of different VPT techniques on symptomatic permanent teeth: A case series [18].
6. Antimicrobial effects of four intracanal medicaments on *Enterococcus faecalis*: An in vitro study [19].
7. Microleakage comparison of four dental materials as intra-orifice barriers in endodontically treated teeth [20].
8. Cone-beam computed tomography evaluation of maxillary first and second molars in Iranian population: A morphological study [21].
9. Antimicrobial and cytotoxic activity of *Cuminum cyminum* as an intracanal medicament compared to chlorhexidine gel [22].
10. Retreatability of root canals obturated using gutta-percha with bioceramic, MTA, and resin-based sealers [23].
11. Treatment outcomes of primary molars direct pulp capping after 20 months: A randomized controlled trial [24].
12. Root and canal morphology of mandibular molars in a selected Iranian population using cone-beam computed tomography [25].
13. Survey of anatomy and root canal morphology of maxillary first molars regarding age and gender in an Iranian population using cone-beam computed tomography [26].
14. Antimicrobial activity of nanoparticle calcium hydroxide against *Enterococcus faecalis*: An in vitro study [27].
15. Location of mental foramen in a selected Iranian population: A CBCT assessment [28].
16. Evaluation of cytotoxic effects of various endodontic irrigation solutions on the survival of stem cells of human apical papilla [29].
17. Impact of ultrasonic activation on the effectiveness of sodium hypochlorite: A review [30].
18. Push-out bond strength of Dorifill, Epiphany, and MTA-Fillapex sealers to root canal dentine with and without smear layer [31].
19. A comparison between the antimicrobial effects of triple antibiotic paste (TAP) and calcium hydroxide against *Enterococcus faecalis* [12].
20. A review on TAP as a suitable material used in regenerative endodontics [32].

21. Micro push-out bond strength and bioactivity analysis of a bioceramic root canal sealer [33].
22. The effect of canal dryness on the bond strength of bioceramic and epoxy-resin sealers after irrigation with sodium hypochlorite or chlorhexidine [34].
23. Indications and case series of intentional replantation of teeth [35].
24. Health technology assessment of calcium enriched mixture (CEM) cement pulpotomy in permanent molars with irreversible pulpitis [36].
25. Various strategies for pain-free root canal treatment [37].
26. Cyclic fatigue resistance of WaveOne Gold, ProDesign R, and ProDesign Logic files in curved canals in vitro [38].
27. Root canal shaping by single-file systems and rotary instruments: A laboratory study [39].
28. The chemical composition of propolis and its applications in endodontics [40].

Discussion

The highly cited published articles analyzed in the current bibliometric analysis have significantly contributed to the field of endodontics; shedding light on various aspects of clinical practice, research trends and technological advancements. The findings from the aforementioned studies have undoubtedly expanded our knowledge and understanding; paving the path for evidence-based approaches and improved patient care.

One of the most prominent areas covered by the selected articles is VPT; a significant aspect of clinical practice, aiming to preserve the vitality as well as the function of the dental pulp [13, 14, 18, 24]. Besides, highly cited published articles have contributed valuable insights to different aspects of VPT for both permanent and primary teeth. Ghoddsi *et al.* [13] and Parisay *et al.* [14] have reviewed new approaches and techniques in VPT for permanent and deciduous teeth, respectively. Asgary *et al.* [18] have conducted a case series evaluating the outcomes of different VPT techniques in symptomatic permanent teeth. Fallahinejad Ghajari *et al.* [24] have performed a randomized controlled trial assessing the treatment results of direct pulp capping in primary molars. A study by Ahangari *et al.* [40] has discussed the potential applications of propolis in VPT and deliberated on its role in promoting tissue regeneration. Yazdani *et al.* [36] have conducted a health technology assessment of CEM pulpotomy in permanent molars with irreversible pulpitis, examining its clinical and cost-effectiveness compared to conventional techniques. The above-mentioned findings have implications for the development of biologically-based approaches to endodontic treatment. In addition, these studies have demonstrated favorable success rates

and provided valuable evidence for the effectiveness of VPT techniques in preserving the vitality of permanent and primary teeth. Furthermore, the findings of the stated published articles emphasize the importance of VPT as an ultraconservative treatment option; promoting the long-term survival of teeth and minimizing the need for more invasive procedures.

Moreover, antimicrobial agents in endodontic treatment have been extensively studied. Rahimi *et al.* [15] conducted a review focusing on antibacterial agents used in endodontic treatment; providing an overview of various antimicrobial agents and their applications. Samiei *et al.* [16] investigated the antimicrobial efficacy of MTA with and without silver nanoparticles; demonstrating the enhanced antimicrobial properties of silver nanoparticles when combined with MTA. Mozayeni *et al.* [19] evaluated the antimicrobial effects of four intracanal medicaments on *Enterococcus faecalis*; highlighting the importance of selecting effective antimicrobial agents for successful root canal disinfection. Dianat *et al.* [27] investigated the antimicrobial activity of calcium hydroxide nanoparticles against *Enterococcus faecalis* and highlighted the potential of calcium hydroxide nanoparticles as an effective intracanal medicament for eradicating *Enterococcus faecalis* in endodontic therapy. Besides, Farhad Mollashahi *et al.* [29] evaluated the cytotoxic effects of different irrigation solutions on the survival of stem cells from the human apical dental papilla. Mohammadi *et al.* [30] reviewed the impact of ultrasonic activation on the effectiveness of sodium hypochlorite as an antimicrobial agent; emphasizing the role of irrigation techniques in enhancing antimicrobial efficacy. Additionally, Adl *et al.* [12] compared the antimicrobial effects of TAP and calcium hydroxide against *Enterococcus faecalis*; providing insights into the antimicrobial properties of different intracanal medicaments. The mentioned studies have significantly contributed to the understanding of the effectiveness of antimicrobial agents in endodontics, and provided valuable information for the selection of appropriate agents to achieve successful disinfection and improve treatment outcomes.

Advancements in imaging technology, specifically CBCT, have revolutionized endodontic diagnosis and treatment planning. The articles by Kiarudi *et al.* [17], Rouhani *et al.* [21], and Madani *et al.* [25] have explored the applications of CBCT in endodontics; providing valuable insights into the evaluation of root canal morphology, anatomical variations and periapical lesions. The mentioned published articles emphasize the significance of CBCT in enhancing diagnostic accuracy and clinical outcomes; facilitating more precise and predictable clinical decision-making.

Other studies have addressed further important aspects of endodontic treatment. Yavari *et al.* [20] investigated the

microleakage of intra-orifice barriers in endodontically treated teeth and provided insights into the effectiveness of different dental materials in preventing bacterial microleakage. Abbaszadegan *et al.* [22] explored the antimicrobial and cytotoxic activities of *Cuminum cyminum* as an intracanal medicament and highlighted its potential as an alternative to chlorhexidine gel. Uzunoglu *et al.* [23] examined the re-treatability of root canals filled with various sealers, which contributed to the understanding of different obturation materials and assisted in retreatment decision-making.

In a study by Naseri *et al.* [26], the anatomies and root canal morphologies of maxillary first molars were surveyed using CBCT; emphasizing the importance of anatomical variations for accurate diagnosis and treatment planning. Razmi *et al.* [34] evaluated the effect of canal dryness on the bond strength of bioceramic and epoxy-resin sealers after irrigation; highlighting the significance of appropriate irrigation protocols for successful root canal treatment. Asgary *et al.* [35] provided insights into intentional replantation as an alternative treatment when conventional endodontic approaches are not feasible or successful. Parirokh *et al.* [37] discussed strategies for pain-free endodontic treatment; exploring various techniques and methods to minimize or possibly eliminate pain during endodontic procedures. In addition, it provided valuable insights into the management of pain associated with root canal treatment; offering potential strategies for enhanced patient comfort.

Finally, Forough Reyhani *et al.* [31] investigated the push-out bond strength of Dorifill, Epiphany and MTA-Fillapex sealers to root canal dentine with and without a smear layer. Carvalho *et al.* [33] examined the micro push-out bond strength and bioactivity of a bioceramic root canal sealer. In a study by de Menezes *et al.* [38], the cyclic fatigue resistance of WaveOne Gold, ProDesign R and ProDesign Logic files in curved canals was assessed. Bane *et al.* [39] conducted a laboratory study on root canal shaping; using single-file systems and rotary instruments.

Use of TAP in regenerative endodontics was discussed in a study by Mohammadi *et al.* [32]. The article focused on the antimicrobial properties and regenerative potential of TAP, which combines minocycline, metronidazole and ciprofloxacin. The study highlighted the promising applications of TAP in treating infected root canals and promoting tissue regeneration. In addition, the review provided valuable insights into the effectiveness and benefits of TAP in regenerative endodontics.

The implications of these highly cited published articles are far-reaching. They have affected clinical practice, contributed to the development of evidence-based guidelines, and fostered further research in the field of endodontology. Moreover, the findings have significant associations with disinfection protocols,

patient selection, treatment outcomes, and advancements in dental (bio)materials and (bio)technology. As the field continues to evolve, the knowledge gained from these studies will continue to shape and refine endodontic practice, ultimately improving patient care and ultimate outcomes.

Conclusions

In conclusion, the analysis of the 29 highly cited published articles in *IEJ* has provided valuable insights into the diverse and evolving field of endodontics. The mentioned articles have covered a wide range of topics; including VPT, antimicrobial agents, root canal disinfection, regenerative techniques, CBCT applications, intracanal medicaments and dental (bio)materials. However, there is a continuous demand for the advanced planning and management of studies in the stated fields to respond to the related clinical problems [41].

Conflict of Interest: 'None declared'.

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Appendix 1. The characteristics of the 29 top highly cited published articles of the “Iranian Endodontic Journal”

Authors	Title	Year	Cited by	Affiliations	Country	Document Type	Brief Review
Ahangari et al.	Propolis: Chemical composition and its applications in endodontics	2018; 13 (3)	84	Shahid Beheshti University of Medical Sciences	Iran	Research Article	This article explores the chemical composition of propolis and its potential applications in endodontics; highlighting its antimicrobial and anti-inflammatory properties. It provides valuable insights into the use of propolis as a natural therapeutic agent in endodontic treatment.
Ghoddusi et al.	New approaches in vital pulp therapy in permanent teeth	2013; 9 (1)	58	Mashhad University of Medical Sciences	Iran	Review	The authors of this article discuss the advancements in vital pulp therapy modalities for permanent teeth; including indirect pulp capping, direct pulp capping, and pulpotomy. They provide a comprehensive overview of these techniques; highlighting their success rates and clinical outcomes.
Partsay et al.	A review on vital pulp therapy in primary teeth	2015	56	Mashhad University of Medical Sciences	Iran	Review	This review focuses on vital pulp therapy approaches, specifically for primary teeth. It discusses the indications, techniques, and outcomes of different treatment modalities; e.g. pulpotomy, pulpectomy, and indirect pulp treatment, emphasizing the importance of preserving primary teeth.
Rahimi et al.	A review of antibacterial agents in endodontic treatment	2014	56	Tabriz University of Medical Sciences	Iran	Review	The authors provide a comprehensive review of antibacterial agents used in endodontic treatment; including irrigants, intracanal medicaments, and root canal sealers. They discuss the mechanisms of action, efficacy, and potential side effects of these agents; aiding clinicians in making informed decisions.
Samiei et al.	Antimicrobial efficacy of mineral trioxide aggregate with and without silver nanoparticles	2013	48	Tabriz University of Medical Sciences	Iran	Research Article	This study evaluates the antimicrobial effectiveness of mineral trioxide aggregate (MTA) with and without silver nanoparticles. The results highlight the enhanced antimicrobial properties of MTA when combined with silver nanoparticles, suggesting its potential use in endodontic therapy.
Kiarudi et al.	The applications of cone-beam computed tomography in endodontics: A review of literature	2015; 10 (1)	46	Shahid Beheshti University of Medical Sciences	Iran	Review	This review discusses the various applications of cone-beam computed tomography (CBCT) in endodontics. It covers topics such as diagnosis of periapical lesions, root canal morphology assessment, detection of root fractures, and treatment planning, emphasizing the significance of CBCT in enhancing diagnostic accuracy and treatment outcomes.
Asgary et al.	Outcomes of different vital pulp therapy techniques on symptomatic permanent teeth: A case series	2014	45	Shahid Beheshti University of Medical Sciences	Iran	Research Article	The authors present a case series evaluating the outcomes of different vital pulp therapy techniques; including direct pulp capping, partial pulpotomy, and full pulpotomy in symptomatic permanent teeth. The study demonstrates favorable success rates and suggests appropriate treatment options for symptomatic teeth.
Mozayeni et al.	Antimicrobial effects of four intracanal medicaments on <i>Enterococcus Faecalis</i> : An in vitro study	2014	42	Shahid Beheshti University of Medical	Iran	Research Article	This in vitro study investigates the antimicrobial effects of four intracanal medicaments against <i>Enterococcus faecalis</i> . The results provide valuable insights into the effectiveness of different medicaments, helping clinicians choose the most appropriate agent for eradicating this resistant microorganism.
Yavari et al.	Microleakage comparison of four dental materials as intra-orifice barriers in endodontically treated teeth	2012; 7 (1)	41	Tabriz University of Medical Sciences	Iran	Research Article	The authors compare the microleakage properties of four dental materials used as intra-orifice barriers in endodontically treated teeth. The study evaluates the sealing ability of these materials, assisting in selecting the most effective intra-orifice barrier to prevent coronal leakage and subsequent bacterial contamination.

Rouhani <i>et al.</i>	Cone-beam computed tomography evaluation of maxillary first and second molars in an Iranian population: A morphological study	2014; 9 (3)	40	Mashhad University of Medical Sciences	Iran	Research Article	This morphological study utilizes cone-beam computed tomography to evaluate the anatomical features and root canal morphology of maxillary first and second molars in an Iranian population. The findings provide important insights into the variations and complexities of root canal systems in these teeth.
Abbaszadegan <i>et al.</i>	Antimicrobial and cytotoxic activity of cuminum cyminum as an intracanal medicament compared to chlorhexidine gel	2016	39	Shiraz University of Medical Sciences	Iran	Research Article	This study investigates the antimicrobial and cytotoxic activity of Cuminum cyminum compared to chlorhexidine gel as an intracanal medicament. The findings highlight the potential of Cuminum cyminum as an alternative antimicrobial agent in endodontic therapy.
Uzunoglu <i>et al.</i>	Retreatability of root canals obturated using gutta-percha with bioceramic, MTA and resin-based sealers	2015	38	Hacettepe University	Turkey	Research Article	The authors evaluate the re-treatability of root canals filled with gutta-percha using bioceramic, mineral trioxide aggregate and resin-based sealers. The study assesses the ease and efficacy of retreatment procedures, providing valuable insights for clinicians when dealing with previously treated root canals.
Fallahnejad Ghajari <i>et al.</i>	Treatment outcomes of primary molars direct pulp capping after 20 months: A randomized controlled trial	2013; 8 (4)	37	Shahid Beheshti University of Medical Sciences	Iran	Research Article	This randomized controlled trial examines the treatment outcomes of direct pulp capping in primary molars after a 20-month follow-up period. The study evaluates the success rates and clinical performance of direct pulp capping as a conservative approach in preserving the vitality of primary molars.
Madani <i>et al.</i>	Root and canal morphology of mandibular molars in a selected Iranian population using cone-beam computed tomography	2017; 12 (2)	36	Babol University of Medical Sciences	Iran	Research Article	Using cone-beam computed tomography; this study investigates the root and canal morphology of mandibular molars in an Iranian population. The findings provide valuable insights into the variations and complexities of root canal systems in mandibular molars; aiding in successful endodontic treatment.
Nasiri <i>et al.</i>	Survey of anatomy and root canal morphology of maxillary first molars regarding age and gender in an Iranian population using cone-beam computed tomography	2016	36	Shahid Beheshti University of Medical Sciences	Iran	Research Article	This study utilizes cone-beam computed tomography to survey the anatomy and root canal morphology of maxillary first molars in an Iranian population; considering age and gender differences. The results contribute to a better understanding of the anatomical variations in maxillary first molars; facilitating more predictable endodontic procedures.
Dianat <i>et al.</i>	Antimicrobial activity of nanoparticle calcium hydroxide against <i>Enterococcus faecalis</i> : An in vitro study	2015	34	Shahid Beheshti University of Medical Sciences	Iran	Research Article	The authors investigate the antimicrobial activity of calcium hydroxide nanoparticles against <i>Enterococcus faecalis</i> in an in vitro study. The findings highlight the potential of calcium hydroxide nanoparticles as an effective intracanal medicament for eradicating <i>Enterococcus faecalis</i> .
Khojastepour <i>et al.</i>	Location of mental foramen in a selected Iranian population: A CBCT assessment	2015; 10 (2)	34	Shiraz University of Medical Science	Iran	Research Article	This study assesses the location of the mental foramen in a selected Iranian population using cone-beam computed tomography. The results provide important data regarding the position and morphology of the mental foramen, aiding clinicians in avoiding neurovascular complications during endodontic procedures.
Farhad Mollashahi	Evaluation of cytotoxic effects of various endodontic irrigation solutions on the survival of stem cell of human apical papilla	2016; 11 (4)	33	Zahedan University of Medical Sciences	Iran	Research Article	The authors evaluate the cytotoxic effects of various endodontic irrigation solutions on the survival of stem cells from the human apical papilla. The study provides valuable information on the potential cytotoxicity of different irrigation solutions, guiding clinicians in selecting appropriate irrigation protocols.
Mohammadi <i>et al.</i>	Impact of ultrasonic activation on the effectiveness of sodium hypochlorite: A review	2015; 10 (4)	33	Shahid Beheshti University of Medical Sciences	Iran	Review	This review article discusses the impact of ultrasonic activation on the effectiveness of sodium hypochlorite in root canal disinfection. The article provides a comprehensive overview of the literature, summarizing the advantages and limitations of ultrasonic activation for enhancing the antimicrobial properties of sodium hypochlorite.

Forough Reyhani <i>et al.</i>	Push-out bond strength of Dorifill, Epiphany and MTA-Fillapex sealers to root canal dentine with and without smear layer	2014; 9 (4)	33	Tabriz University of Medical Sciences	Iran	Research Article	This study evaluates the push-out bond strength of Dorifill, Epiphany, and MTA-Fillapex sealers to root canal dentin with and without smear layer. The results provide insights into the adhesion properties of these sealers, helping clinicians make informed decisions when selecting the most appropriate sealer for root canal obturation.
Adl <i>et al.</i>	A comparison between the antimicrobial effects of triple antibiotic paste and calcium hydroxide against enterococcus faecalis	2012; 7 (3)	33	Shiraz University of Medical Sciences	Iran	Research Article	This study compares the antimicrobial effects of triple antibiotic paste and calcium hydroxide against Enterococcus faecalis. The findings contribute to the understanding of the antimicrobial efficacy of these medicaments, assisting in the selection of suitable intracanal disinfection protocols.
Mohammadi <i>et al.</i>	A review on triple antibiotic paste as a suitable material used in regenerative endodontics	2018; 13 (1)	32	Shahid Beheshti University of Medical Sciences	Iran	Research Article	This review article provides an overview of the triple antibiotic paste as a suitable medicament used in regenerative endodontics. In addition, the review summarizes the indications, properties, and clinical applications of triple antibiotic paste; highlighting its potential in promoting root maturation and tissue regeneration.
Carvalho <i>et al.</i>	Micro push-out bond strength and bioactivity analysis of a bioceramic root canal sealer	2017; 12 (3)	32	CEUMA University	Brazil	Research Article	This study evaluates the micro push-out bond strength and bioactivity of a bioceramic root canal sealer. The findings shed light on the adhesive properties and bioactive behavior of the sealer; contributing to its clinical applications in endodontic treatment.
Razmi <i>et al.</i>	The effect of canal dryness on bond strength of bioceramic and epoxy-resin sealers after irrigation with sodium hypochlorite or chlorhexidine	2016; 11 (2)	32	Tehran University of Medical Sciences	Iran	Research Article	This study investigates the effect of canal dryness on the bond strength of bioceramic and epoxy-resin sealers after irrigation with sodium hypochlorite or chlorhexidine. The results provide insights into the impact of moisture control during obturation procedures, guiding clinicians in achieving optimal sealant adhesion.
Asgary <i>et al.</i>	Indications and case series of intentional replantation of teeth	2013; 9 (1)	32	Shahid Beheshti University of Medical Sciences	Iran	Research Article	This article presents the indications and case series of intentional replantation of teeth. The authors discuss the circumstances where intentional replantation can be considered a treatment option; highlighting its success rates and long-term outcomes.
Yazdani <i>et al.</i>	Health technology assessment of CEM pulpotomy in permanent molars with irreversible pulpitis	2013; 9 (1)	32	Shahid Beheshti University of Medical Sciences	Iran	Review	This health technology assessment evaluates the clinical effectiveness and cost-effectiveness of CEM pulpotomy in permanent molars with irreversible pulpitis. The study provides insights into the advantages and limitations of CEM pulpotomy; aiding clinicians in decision-making regarding pulp therapy in such cases.
Paritrokh & Abbott	Various strategies for pain-free root canal treatment	2013; 9 (1)	31	Kerman University of Medical Sciences	Iran	Review	This review article discusses various strategies for pain-free root canal treatment. The authors explore different techniques, materials, and technologies aimed at minimizing patient discomfort during endodontic procedures; providing valuable insights for clinicians in achieving pain-free outcomes.
de Menezes <i>et al.</i>	Cyclic fatigue resistance of waveone gold, prodesign R and prodesign logic files in curved canals in vitro	2017; 12 (4)	30	University of Pernambuco FOP-UPE	Brazil	Research Article	This in vitro study evaluates the cyclic fatigue resistance of WaveOne Gold, ProDesign R, and ProDesign Logic files in curved canals. The findings compare the resistance to cyclic fatigue failure of these file systems; aiding clinicians in selecting appropriate instruments for effective and safe root canal preparation.
Bane <i>et al.</i>	Root canal shaping by single-file systems and rotary instruments: A laboratory study	2015; 10 (2)	30	Cheikh Anta Diop University of Dakar	Senegal;	Research Article	This laboratory study compares root canal shaping techniques using single-file systems and rotary instruments. The study evaluates the shaping ability and efficiency of these techniques, providing valuable information for clinicians when choosing the most suitable instrumentation approach for predictable root canal preparation.