



ORIGINAL RESEARCH PAPER

Endodontics

QUESTIONNAIRE STUDY ON PERCEPTION OF SINGLE VISIT AND MULTIPLE VISIT AMONG GENERAL DENTIST OR ENDODONTIST

KEY WORDS: Root canal ,single visit endodontics and multiple visit endodontics.

T. Manojkanna

Undergraduate Student Department Of Conservative Dentistry And Endodontics, Adhiparasakthi Dental College And Hospital, Melmaruvathur, Tamilnadu 603319

Dr Saranya Sivaraj

Senior Lecturer Department Of Conservative Dentistry And Endodontics, Adhiparasakthi Dental College And Hospital Melmaruvathur Tamilnadu 603319

ABSTRACT

Introduction: One of the main debates that have occurred in Endodontics is about the amount of sessions required to complete an appropriate treatment. There are very different philosophies regarding this matter. **Objective:** Aim of this study was to investigate the endodontist or general dentist point of view regarding single and multiple visit root canal treatment, identifying the basis on which the choice is made and how the information necessary for the choice is acquired. **Material and methods:** Endodontists or general dentist registered in the dental practice were contacted, and if they agreed to participate, they were interviewed using a questionnaire. The following topics were addressed: demographics, current clinical procedures, treatment rationales and preferences. A general dentist and endodontist are included in study . simple questionnaire was distributed among 200 dentists, out of which 186 respondents participated in the study. They were inquired about the type of the treatment they preferred depending on the status of the pulp and peri radicular region of the tooth. And patient cooperation . In the last part participants were investigated about the reasons to choose multiple visits and single visit root canal therapy. **Results :** 53.2% were male and 46.8% were female. Of these, 78.5% had neither a master nor doctorate degree. Most of them have less than five years of specialist practice (99.5%). general dentist (93%) are attended questionnaire .others are 6.5% .multiple visit therapy is usually practiced by almost 60.0% of all dentist , and they 80.1% responded multiple visit endodontics are more effective than the single visit endodontics .74.7 % dentist are used multiple visit endodontics for root canal treatments. **Conclusion;** It can be concluded that general dentist prefer multiple visit over single visit root canal treatment.

INTRODUCTION

Single and multiple visit root canal treatment has been the subject of long-standing debate in the endodontic community, not only on the biological and efficiency point of view, but also on the operator and patient's comfort, satisfaction and preferences [1]. Single visit endodontic therapy has many advantage, e.g. (a) it reduces the number of patient appointments; (b) it eliminates the chance for inter appointment microbial contamination; [2,3]. However, two concerns regarding single visit root canal treatment still make many endodontist do not use this therapy: (a) the incidence of flare ups and (b) the long-term success [4,5]. The aim of the present study was to investigate endodontist or general dentist point of view regarding single and multiple visit root canal treatment, identifying the basis on which the choice is made and how the information necessary for the choice is acquired Single and multiple visit root canal treatment has been the subject of long-standing debate in the endodontic community, not only on the biological and efficiency point of view, but also on the operator and patient's comfort, satisfaction and preferences [6]. Both options of treatment, single and multiple visits, are based on solid studies, but the number of different opinions is still significant [7.]. The aim of the present study was to investigate endodontists' point of view regarding single and multiple visit root canal treatment, identifying the basis on which the choice is made and how the information necessary for the choice is acquired

Objective :

To the aim of this study was to investigate the general dentist or endodontist point of view regarding single and multiple visit root canal treatment, identifying the basis on which the choice is made and how the information necessary for the choice is acquired.

MATERIALS AND METHODS

A questionnaire was sent to 200 general dentist or endodontist It was e mailed with wording briefly explaining the purpose of the study. The questionnaires were divided in two sections:

- The first one was about age, gender, place of work, time since graduation and level of academic degree;
- The second one consisted in questions about current clinical procedures, treatment options, preferences and opinion about single and multiple visit canal treatment.

The answers were recorded and entered into spread sheet software for analysis. Descriptive statistics were used.

RESULTS

53.2% were male and 46.8% were female. Of these, 78.5% had neither a master nor doctorate degree. Most of them have less than five years of specialist practice (99.5%). general dentist (93%) are attended questionnaire .others are 6.5% .multiple visit therapy is usually practiced by almost 60.0% of all dentist , and they 80.1% responded multiple visit endodontics are more effective than the single visit endodontics .74.7 % dentist are used multiple visit endodontics for root canal treatments.

Table 1 Represents The Descriptive Statistics For The Demographic Details Of The Study Population

PARAMETER	OPTIONS	FREQUENCY	PERCENTAGE
AGE IN YEARS	30-40	1	.5
	BELOW 30	185	99.5
GENDER	FEMALE	99	53.2
	MALE	87	46.8
PRACTICE	0-5 YEARS	185	99.5
	6-10 YEARS	1	.5
TYPE OF WORK	ACADEMIC / TEACHING	146	78.5
	OTHERS	19	10.2
	PRIVATE PRACTITIONER	21	11.3
LEVEL OF EDUCATION	ENDODONTICS	1	.5
	GENERAL DENTIST	173	93.0
	OTHERS	12	6.5

1. Frequency of Practicing Single-Visit Endodontics

- Always:** 8.1% (15 participants)

- **Frequently:** 6.5% (12 participants)
- **Occasionally:** 20.4% (38 participants)
- **Never:** 65.1% (121 participants)
- *Significance ($P = 0.000$)**: Most respondents rarely practice single-visit endodontics, indicating a statistically significant preference against it.

2. Effectiveness of Single-Visit vs. Multiple-Visit Endodontics

- **No, Multiple-visit Is More Effective:** 80.1% (149 participants)
- **Yes, Equally Effective:** 15.6% (29 participants)
- **Not sure:** 4.3% (8 participants)
- *Significance ($P = 0.000$)**: A large majority believe multiple-visit endodontics is more effective than single-visit treatments.

3. Advantages of Single-Visit Endodontics

- **Time-saving for both patient and practitioner:** 89.2% (166 participants)
- **Patient satisfaction:** 9.1% (17 participants)
- **Reduce Risk Of Re-infections:** 1.6% (3 participants)
- *Significance ($P = 0.000$)**: The primary advantage of single-visit endodontics is perceived as time efficiency.

4. Suitability of Single-Visit Endodontics for All Cases

- **Yes:** 69.9% (130 participants)
- **No:** 30.1% (56 participants)
- *Significance ($P = 0.000$)**: Most respondents believe single-visit endodontics is suitable for all types of cases.

5. Frequency of Using Multiple-Visit Endodontics

- **Always:** 74.7% (139 participants)
- **Sometimes:** 21.5% (40 participants)
- **Frequently:** 3.2% (6 participants)
- **Rarely/Never:** 0.5% (1 participant)
- *Significance ($P = 0.000$)**: Multiple-visit endodontics is the most commonly used treatment method.

6. Perceived Effectiveness of Multiple-Visit Endodontics

- **More Effective:** 78.5% (146 participants)
- **Equally Effective:** 14.0% (26 participants)
- **Less Effective:** 5.9% (11 participants)
- **Not sure:** 1.6% (3 participants)
- *Significance ($P = 0.000$)**: The majority perceive multiple-visit endodontics as more effective.

7. Main Drawbacks of Multiple-Visit Endodontics

- **More time-consuming:** 73.1% (136 participants)
- **Increased Risk Of Missing Appointments Or Delays:** 16.7% (31 participants)
- **Increased Cost For Patients:** 5.9% (11 participants)
- **Increased Risk Of Re-infections Between Visits:** 4.3% (8 participants)
- *Significance ($P = 0.000$)**: Time consumption is identified as the main drawback of multiple-visit endodontics.

8. Long-Term Outcomes of Multiple-Visit vs. Single-Visit Endodontics

- **Yes, Multiple-visit Leads To Better Outcomes:** 96.2% (179 participants)
- **No:** 3.8% (7 participants)
- *Significance ($P = 0.000$)**: A significant majority believe multiple-visit endodontics leads to better long-term outcomes.

Conflict Of Interest

- There are no conflict of interest.

DISCUSSION

Questionnaire-based studies are practical and allow information gathering from a large number of people in a

short span of time and in a relatively cost-effective manner. In addition, questionnaires can be carried out by any number of people with limited effect on the study's validity and reliability.[13,14]. The nonrespondents (7% of the initial study population) declined participation in the study yet many would favor multiple visits if the success rate of multiple visits were higher than that of a single-visit.[8] In the present study, students also preferred a single-visit to multiple visits; according to patient cooperation. A study was conducted among 200 dentist about the perception of single- and multiple-visit root canals. The dentist documented that they preferred multiple visits to a single-visit even when there were no medical concerns and the choice of treatment depended upon the operator's preference and not on the patient's medical concerns.[9] The pros and cons of single-versus multiple-visit RCTs have been debatable over the past several years. Both endodontists and patients have different reasons for favoring one over the other. In 2012, a study conducted at the University of Iowa documented that 78% of 124 patients preferred single-visit RCTs, yet many would favor multiple visits if the success rate of multiple visits were higher than that of a single-visit.[8] In the present study, students also preferred a single-visit to multiple visits; according to them, patient cooperation. Another study in Brazil reported that the need for single or multiple visits mainly depends upon tooth vitality, and the success rate of both is comparable.[18] However, a single visit saves the patient's time and has good acceptance from the patient. Nevertheless, reasons such as pain, swelling, and tooth structure demand for multiple visits.[19] Different studies have reported different views. This study evaluated the perceptions of dental students on multiple visit endodontic treatment while considering tooth type, and how that affects patient cooperation. However, to the best of our knowledge, this is the first study to document dental students' perception toward multiple-visit RCT and its effect on patient cooperation. Therefore, the focus should be made on such strategies that can be helpful in making the multiple visits comfortable for patients. To maximize the benefits of single-visit RCT, such practice needs to be introduced in the clinical training of dental students'. Moreover, students should be informed with the objectives and rationale of including single-visit RCT according to study among dentist, they preferred multiple visit is more effective for root canal treatment and they often practice single visit rct in clinical practice and they consider that multiple visit endodontics have main drawback of more time consuming for patient .and multiple visit endodontics leads to better long term outcome for patients compared to single visit treatment .

Limitation

The majority of respondents prefer and believe in the effectiveness of multiple-visit endodontics over single-visit procedures. Time-saving is the most acknowledged advantage of single-visit endodontics, but concerns about its effectiveness make it less popular. Multiple-visit endodontics is perceived as more reliable, despite challenges like increased time consumption and risks of delays. These findings suggest a strong preference for multiple-visit endodontics for long-term patient outcomes.

CONCLUSION

- It can be concluded from the study is general dentist or endodontist prefer multiple visit over single visit root canal treatment.
- Majority of dentist practice more multiple visit than the single visit endodontics and they are believe that multiple visit are better long term than the single visit endodontics.
- Therefore, the focus should be made on such strategies that can be helpful in making the multiple visits comfortable for patients.

REFERENCES

1. Sathorn C, Parashos P, Messer H. Australian endodontists' perceptions of single and multiple visit root canal treatment. *Int Endod J*. 2009;42:811-8
2. Ashkenaz, PJ. One-visit endodontics. *Dent Clin North Am*. 1984;28:853-63

3. Morse DR. One-visit endodontics. *Hawaii Dent J*. 1987;18:12-4.
4. Eleazer PD, Eleazer KR. Flare-up rate in pulpally necrotic molars in one-visit versus two-visit endodontic treatment. *J Endod*. 1998;24:614-6.
5. 36. Trope M. Flare-up rate of single-visits endodontics. *Int Endod J*. 1991;24:24-7.
6. Sathorn C, Parashos P, Messer H. Australian endodontists' perceptions of single and multiple visit root canal treatment. *Int Endod J*. 2009;42:811-8.
7. Eleazer PD, Eleazer KR. Flare-up rate in pulpally necrotic molars in one-visit versus two-visit endodontic treatment. *J Endod*. 1998;24:614-6.
8. Popper K. *The Logic of Scientific Discovery*. London, New York: Routledge Classics;2004.
9. Ackroyd S, Hughes JA. *Data Collection in Context*. London: Longman; 1981.
10. Vela KC, Walton RE, Trope M, Windschitl P, Caplan DJ. Patient preferences regarding 1-visit versus 2-visit root canal therapy. *J Endod* 2012;38:1322-5.
11. Al-Saleh SA, Al-Madi EM, Al-Angari NS, Al-Shehri HA, Shukri MM. Survey of perceived stress-inducing problems among dental students, Saudi Arabia. *Saudi Dent J* 2010;22:83-8.
12. Yap E, Parashos P, Borromeo GL. Root canal treatment and special needs patients. *Int Endod J* 2015;48:351-61.
13. De Souza Netto M, Saavedra F, Simi Júnior J, Machado R, Nogueira Leal Silva EJ, Vansan LP. Endodontists' perceptions of single and multiple visit root canal treatment: A survey in Florianópolis - Brazil. *RSBO* 2014;11:14-9.
14. Naito T. Single or multiple visits for endodontic treatment? *Evid Based Dent* 2008;9:24.
15. Singla R, Marwah N, Dutta S. Single Visit versus Multiple Visit Root Canal Therapy. *Int J Clin Pediatr Dent*. 2008 Sep;1(1):17-24. doi: 10.5005/jp-journals-10005-1004. Epub 2008 Dec 26. PMID: 25206084; PMCID: PMC4086535.
16. Ordinola-Zapata R, Noblett WC, Perez-Ron A, Ye Z, Vera J. Present status and future directions of intracanal medicaments. *Int Endod J*. 2022 May;55 Suppl 3(Suppl 3):613-636. doi: 10.1111/iej.13731. Epub 2022 Apr 19. PMID: 35322427; PMCID: PMC9321724.
17. Llena C, Nicolescu T, Perez S, Gonzalez de Pereda S, Gonzalez A, Alarcon I, Monzo A, Sanz JL, Melo M, Forner L. Outcome of Root Canal Treatments Provided by Endodontic Postgraduate Students. A Retrospective Study. *J Clin Med*. 2020 Jun 25;9(6):1994. doi: 10.3390/jcm9061994. PMID: 32630443; PMCID: PMC7355894.
18. Tirupathi SP, Krishna N, Rajasekhar S, Nuvvula S. Clinical Efficacy of Single-visit Pulpectomy over Multiple-visit Pulpectomy in Primary Teeth: A Systematic Review. *Int J Clin Pediatr Dent*. 2019 Sep-Oct;12(5):453-459. doi: 10.5005/jp-journals-10005-1654. PMID: 32440053; PMCID: PMC7229364.