A Study to Assess Perception of Dentist Regarding Single-Visit Root Canal Treatment at Dental Clinics In India

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Introduction: Single-visit root canal treatment attempts instrumentation, disinfection and obturation of the root canal system in one visit. One of the main debates that have occurred in Endodontics is about the amount of sessions required to complete Root canal treatment. There are very different philosophies regarding this matter. Objective: the aim of this study was to investigate the General Dentists point of view regarding single 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: 100 registered Dentists in the dental practice were contacted, and if they agreed to participate, they were send a questionnaire. The following topics were addressed: demographics, current clinical procedures, treatment rationales and preferences. Results: Majority 60 % of the dental practitioners responded vitality of pulp was the reason for choosing the single-visit RCT followed by patient’s choice  22%, patent and normal roots 11 %, non-vital tooth with sinus 5 %  and other reasons 2 % respectively Conclusion: It can be concluded that when pulp vitality is not compromised there is an increase in the number of dentists who choose single visit root canal treatment.

Keywords: Endodontics, Root Canal Treatment, Dentistry, Pulpal pathology, Single sitting RCT, Multiple visit RCT.

INTRODUCTION

Endodontic treatment additionally referred to as Root Canal Treatment (RCT) involves the removal of pathologic pulpal tissue to forestall and intercept pulpal/periradicular pathosis and protection of the disinfected tooth from future fortification by microorganisms. Therefore, RCT must always be thought-about whenever indicated because it not solely favors the preservation of natural teeth however additionally has glorious clinical outcomes. Single-visit RCT treatment completes involves instrumentation, medical aid and obturation of the foundation canal system in one visit. In distinction, multiple-visit RCT treatment performs procedures in a
minimum of 3 visits. Moreover, a disinfecting medication is placed within the canals between visits to permit more reduction of microorganism numbers. whereas single-visit treatment has obvious blessings over standard multiple-visit treatment (like reduced range of visits, no would like for recurrent application of anaesthesia or rubber dam, no temporary restoration); it’d be harmful each with relevance short-run and long-run outcomes. Single and multiple visit RCT treatment has been the topic of long-standing dialogue within the Dental community, not solely on the biological and potency purpose, however additionally on the operator and patient’s comfort, satisfaction and preferences [29], each choices of treatment, single and multiple visits, ar supported solid studies, however the amount of various opinions continues to be vital [12, 14, 16, 18, 24, 26, 30, 33, 39]. Single visit odontology medical aid has several advantage, e.g. (a) it reduces the amount of patient appointments; (b) it eliminates the possibility for interappointment microorganism contamination; (c) it permits for the immediate use of the canal area retention of a post; and (d) it permits the endodontists perform the final restoration canal filling. However there are , 2 considerations concerning single visit RCT treatment still build several endodontists don’t use this therapy: (a) the incidence of flare-ups and (b) the long-run success [9, 36]. Recent studies incontestable no variations between single and multiple visit treatment concerning to operative complications [1, 5, 31]; but, there's a scarcity of conclusive studies demonstrating the long-run success of single visit treatment in pulp necrosed teeth [14, 26, 39]. The aim of this study is to to investigate the view of single-visit endodontics among the general dentists and identify the factors on which their decision was made.

METHODOLOGY

A questionnaire was sent to one hundred fifty Dentists. This was a descriptive cross-sectional survey. The questionnaire consists of three sections i) motives for choosing single-visit or a multiple RCT ii) number of root canal remedy performed in a month iii) number of visits for finishing the RCT relying on the conditions of periapical region of the teeth. The inclusion criteria include Dentists operating in private practice, academics, or for government sector. The exclusion standards had been dental practitioners who didn’t wanted to be the a part of the survey. data series become executed by way of sending dependent self-administered questionnaire to the dental practitioners via social media (WhatsApp, e-mail, Facebook and Instagram). The purpose of examine became explained to the individuals. The questionnaire used for our study a become valid and reliable tool [14] for comparing the perception of single-visit root canal treatment a few of the dental practitioners in Indian location. The questionnaire describing the reasons for deciding on single-visit or a multiple visit enlisted. Data turned into recorded and evaluated by using the use of SPSS software (IBM, Chicago, IL, USA. Descriptive evaluation turned into performed and conveyed as percentage (%) and frequency. The answers had been recorded and entered into spread sheet software program for evaluation. Descriptive statistics had been used.

RESULTS

A total of 150 dental practitioners were contacted initially by different mean of social media (Facebook, Email, WhatsApp etc.), 100 dental practitioners responded to the survey. 65 % were males and 35 % females. 32 % of respondents were endodontist, 58 % were general dentist and 10 % were from the other dental specialties. The average number of RCT’s done in a month by the dental practitioners were less than 20 teeth 60 %, 21-30 teeth 73 (30 %) and more than 30 teeth were 10 % respectively. Table 1 demonstrate the distribution of reasons for choosing single-visit or a multiple visit RCT. Majority 60 % of the dental practitioners responded vitality of pulp was the reason for choosing the single-visit RCT followed by patient’s choice 22%, patent and normal roots 11 %, non-vital tooth with sinus 5 % and other reasons 2 % respectively as in Table 2.

<p>| TABLE (1): AVERAGE RCT’S PERFORMED IN A MONTH BY DENTISTS |
|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>RCT’s performed in a month</th>
<th>Percentage of dental practitioners</th>
</tr>
</thead>
</table>

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less than 20 teeth 60 %
21-30 teeth (30 %)
more than 30 teeth 10 %

TABLE (2) : REASON FOR CHOOSING THE SINGLE-VISIT RCT BY THE DENTISTS

<table>
<thead>
<tr>
<th>Reason For Choosing The Single-Visit RCT</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>vitality of pulp</td>
<td>60 %</td>
</tr>
<tr>
<td>patient’s choice</td>
<td>22%</td>
</tr>
<tr>
<td>patent and normal roots</td>
<td>11 %</td>
</tr>
<tr>
<td>non-vital tooth with sinus</td>
<td>5 %</td>
</tr>
<tr>
<td>other reasons</td>
<td>2 %</td>
</tr>
</tbody>
</table>

DISCUSSION

Single-visit endodontic therapy is defined as ‘the conservative non-surgical treatment of an endodontically involved tooth consisting of complete biomechanical cleansing, shaping and obturation of the root canal system during one visit.’ With the arrival of latest instrumentation techniques, material science and technology, single sitting root canal has become a convenient option. The foremost necessary choice criteria for single visit RCT criteria are: 1. Positive patient acceptance 3. decent time to complete procedure 4. Absence of acute symptoms needing drainage 5. Absence of anatomic obstacles and procedural difficulties. 6. Patients requiring full mouth rehabilitation. 7. Physically disabled patients WHO cannot return to dental clinics often. 8. Patients in whom sedation is needed 7. broken anterior or bicuspids teeth wherever esthetics is that the concern. 10. Teeth with accidental/mechanical pulp exposure. 11. Teeth requiring immediate post placement, wherever esthetics is that the concern. 12. Non important teeth with sinus tract . The Contraindications are: one. Teeth with anatomic anomalies for e.g. calcified and sickle-shaped canals. 2. Patients with allergies. 3. Acute alveolar symptom cases with pus discharge. 4. Patients who are unable to keep their mouth open for longer duration for e.g. TMJ disorders. 5. Symptomatic non-vital teeth and no sinus tract. 6. symptomless teeth with periapical pathology and no sinus tract [5,6]. When the results were analyzed, it absolutely was found that with regard to the rationale for selecting the single-visit RCT, 60 % of dental practitioners choose the Vital pulp. With the advancement within the field of medicine, additional refined rotary NiTi files, dental operative microscopes with new generations of apex locators and digitally improved radiography area unit used, of these factors build single visit dental medicine additional applicable treatment modality [23]. The second reason for selecting the single-visit RCT was found to be the patient’s alternative (22%). This finding is supported by similar results from a study [14]. the rationale is also as a result of the patients prefers less appointments and therefore the concern of post-operative pain. With regard to the RCT of necrosis of pulp, most clinicians additionally favour multiple visit RCT. Such findings area unit similar within the previous analysis done by Araújo Filho and Sendra [2]. Most dental practitioners failed to conduct the single-visit RCT, several have with success dole out the treatment of necrosed teeth with periapical Perception of Single sitting root canal.

CONCLUSION
The findings of this survey, it may be concluded that maximum dental practitioners of Indian carry out single-visit root canal remedy however the vitality of pulp is the number one and most sizeable purpose for deciding on the single-go to endodontic therapy.

REFERENCES

6. Netto et al. – Endodontists perceptions of single and multiple visit root canal treatment: a survey in Florianópolis – Brazil