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ANALYSIS OF CANAL TRANSPORTATION, CENTERING ABILITY AND REMAINING DENTIN THICKNESS OF DIFFERENT SINGLE FILE ROTARY SYSTEMS IN PRIMARY TEETH; A CBCT ASSESSMENT

Dr. BAHAR JAAFAR SELIVANY and **HAZHA ABDULKAREEM AHMED**
Dept. of Conservative Dentistry, College of Dentistry, University of Duhok, Kurdistan Region-Iraq

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ABSTRACT

Objective: This study aimed to evaluate and compare canal transportation, centering ability, dentine thickness and instrumentation time of manual instrumentation (ISO standardized stainless steel K- file) and different single file system in primary root canals using Cone Beam Computed Tomography (CBCT).

Materials and Methods: Sixty extracted human lower primary second molar teeth with at least 7mm root length were randomly divided in to three groups (Group one- Hand K- files, Group two- One-Shape rotary, Group three- Wave One- Gold reciprocating) were included in the study. CBCT images were obtained before and after the instrumentation for each group. Canal transportation, centring ability, dentin thickness and instrumentation time were evaluated for each group.

Results: A significant difference was found in transportation, centering ability between Group one &Group two, Group one &Group three (P<0.05) at middle and apical levels of the canals respectively. A significant difference was found in dentin thickness between Group one &Group two, Group one& Group three (P<0.05) at apical level of the canals. Instrumentation time was less in Group two and Group three than Group one (P<0.05).No significant difference was found between Group two &Group three (P<0.05).

Conclusion: Use of single file system in primary teeth results in reduction of instrumentation time and maintains original shape of root canal.

***KEYWORDS*:** Primary teeth, Single file system, Rotary instrumentation, Reciprocating, CBCT, Endodontics.

1. INTRODUCTION

Natural tooth is taken in to account as the good space maintainer. Then, it is important to preserve the tooth in the dental arch till natural exfoliation happened. [1] The early wastage of deciduous teeth might involve: decrease arch length and space misplacing, untimely or lateness eruption of adult tooth, mesial deviation of posterior teeth or distal deviation of anterior teeth, masticatory defect and most important malocclusion. [2] Pulp treating of deadly primary teeth has been suggested using different protocols with changeful success rates. While, the traditional instrumentation technique for deciduous teeth remains manual instrumentation which is time-consumption. [3]

Nickel-titanium (NiTi) rotary instruments have been advanced, and are now greatly used in endodontics as an effective mechanism. The designing and high flexibility of Ni-Ti files permit instruments to widely imitate the main root canal way, particularly in turned canals. [4, 5]A "single-file" technique, it is absolutely a decreasing in the number of files needed to prepare a root canal as compared to using all successive rotary files. [6] Single-file rotary systems are divided to two groups: continuous rotating and reciprocating files, based on type of their movement. [7] The beneficial of these single-file systems involved decrease in the working time, avoidance of cross-contamination, and enhanced safety of the shaping protocols. [8]

"One shape "endodontic file has been presented for the first time by (Micro Mega France), it is a single file shaping system and recommended for single use to prevent the risk of cross-contamination. [9] Wave One-Gold, a new reproduction of reciprocating files was initiated. This single use shaping files offer the clinician more absent of complexity, safety, increase cutting productivity and mechanical characteristic contrast to the prior reproduction of reciprocating devices.[10] Few new studies on these recently instruments have presented a superior forming and centering ability. Then, these studies were performed on adult teeth. From this place, there is a required to estimate their effectiveness in primary

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teeth, which are anatomically more challenging than the adult teeth.

2. MATERIALS AND METHODS

Study conducted in the department of Pediatric and Preventive Dentistry at College of Dentistry in University of Duhok and ethical approval was obtained in advance. In this experimental, invitro study sixty extracted human lower primary second molar teeth with minimum7 mm root length were included. Teeth with pathological root reabsorption (external and/or internal); external and/or internal furcation perforation; Pulpotomy and pulpectomy teeth were excluded from the study. Teeth were washed under tap water after extraction and then cleaned mechanically with ultrasonic scaler to remove hard deposit and soft tissues and were stored in 0.1% thymol solution at room temperature in 60 flat- bottom blood collection tubes with screw cap, until used. [11, 12]

Teeth were washed with distilled water, de-coronated at Cement- Enamel Junction (CEJ) by using diamond disc.The lengths of distal canals distobuccal& distolingual (DB &DL) were at minimum 7 mm. Booth distal canals (Type III according to Weine classification, two separated canals) were investigate with size #10 K- file (Dentsply Malliefer, Ballaigues, Switzerland) until the file tip could be visible from the apical foramen. Then the working length measured by subtracting 1mm from this length. Then apices of the roots were sealed with wax and were fixed in silicone rubber based impression material using a plastic mold to inhanced instrumentation procedure and well-kept reproducibility of the CBCT images.

Before starting canal preparation CBCT images (NewTom GiANO Specifications, version 9/ Italy, filed of view: 11×5 cm, exposure parameters were set at 90 Kv, 3 mA, 9 sec) were achieved, sections were got at coronal, middle and apical parts. [13]After the preparation stage post instrumentation CBCT images were achieved correctly like to what had been done before instrumentation. The pre-procedure images were recorded to be tardily compared with post-preparation images.

In this study both DB&DL were estimated and the teeth were randomly divided to three equal groups (n=20).

Group 1: Forty root canals were instrumented with hand K-file tip size 25/ 0.2 taper (Dentsply/ Maillefer, Switzerland) with the crown-down technique.

Group 2: Forty root canals were instrumented with One Shape (Micromega, France) taper of 0.6% in clockwise continuous rotation. The speed and torque that used was (360) round per minute (rpm) and (1.5 Ncm) with the crown-down technique. Instruments were driven using the X-smart IQ endodontic motor (Dentsply Maillefer)

Group 3: Forty root canals were instrumented with WaveOne Gold (primary) (Dentsply maillefer, Switzerland) having a taper of 0.7% in reciprocation motion (30 clockwise and 150 counterclockwise) with the crown-down technique. Instruments were driven using the X-smart IQ endodontic motor (Dentsply Maillefer). Instrumentation was performed by the same operator in all three groups. Each file disposed after two uses and cleaning of file flutes done with 96% ethyl alcohol by using of dental gauze. Before starting instrumentation intracanal irrigation with 1ml of normal saline was used for each canal. After each file instrumentation, 1ml of 0.5% sodium hypochlorite was used for intracanal irrigation followed by a 1ml of 17% EDTA rinse. After finished of cleaning and shaping 1ml of normal saline was used as a last rinse and the canals were dried with paper points. The instrumentation time was registered in minutes with digital chronometer.

The canal transportation throughout shaping and cleaning was concluded through measurement the shortest distance from the outer surface of instrumented and uninstrumented canal to the periphery of the root (mesial and distal) and compare these measurements. The formula that used for the calculation of root canal transportation was: (a1– a2) - (b1– b2).Which is, a1: is the shortest distance starting in the mesial edge of the canal to the mesial edge root in uninstrumented canal.

b1: is the shortest distance starting in distal edge of the canal to the distal edge of the root in uninstrumented canal.

a2: is the shortest distance starting in the mesial edge of the canal to the mesial edge of the root in instrumented canal.

b2: is the shortest distance starting distal edge of the canal to the distal edge of the root in the instrumented canal. [13, 14]

If transportation equal to 0 (zero) indicate absence of transportation, a negative value described transportation to the distal direction, and a positive value represented transportation toward the mesial direction. The centring ability was measured as this formula: (a1-a2)/ b1-b2) or (b1-b2)/ (a1-a2).A outcome equal to 1.0 reveal complete centralization. When this value was closer to zero, it inferred that the instrument had a decreased capacity to preserve itself in the central line of the canal. Dentin thickness was determined on the axial cuts from the outer surface of the tooth to the

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periphery of the pulp space at three levels (cervical, middle, and apical) (Figs 1, 2 and 3). [13]

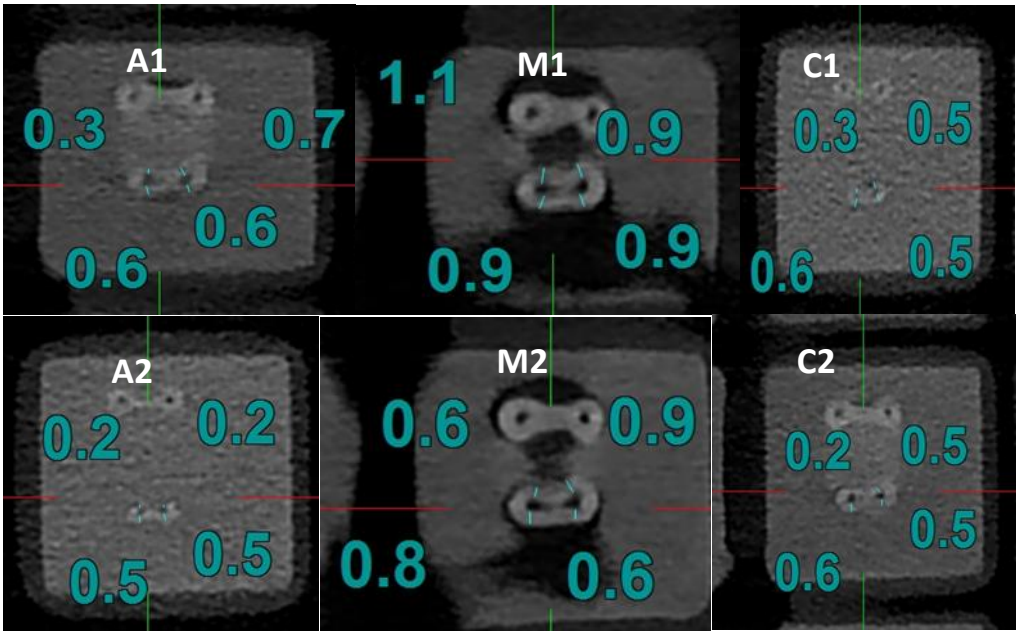

Fig. (1): Dentin thickness for K- files (A1, M1& C1 apical, middle& cervical levels respectively) before instrumentation and (A2, M2& C2 apical, middle& cervical levels respectively) after instrumentation.

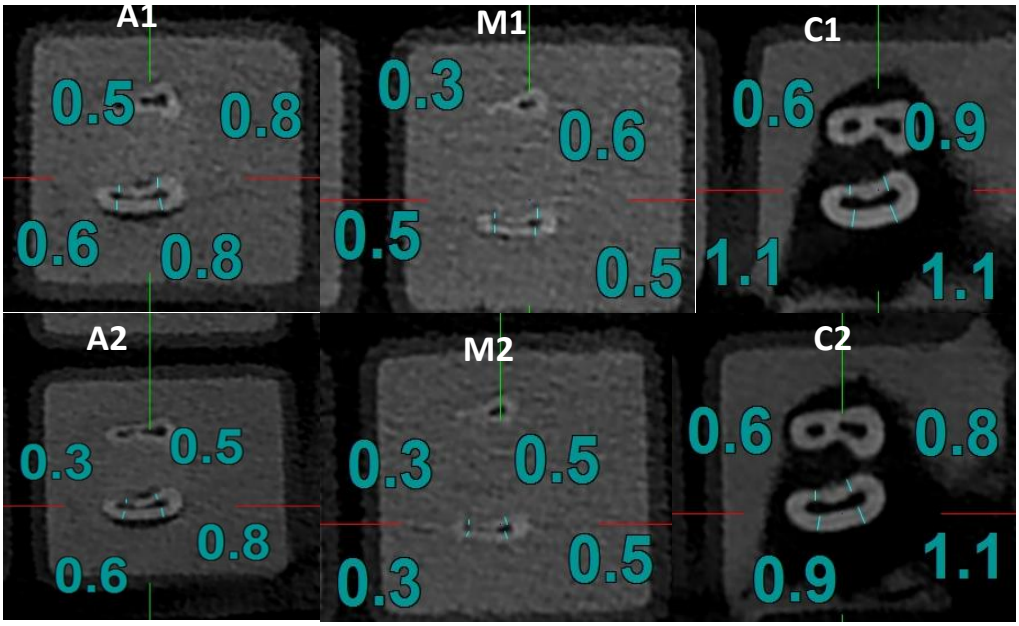

Fig. (2) Dentin thickness for One Shape (A1, M1& C1 apical, middle& cervical levels respectively) before instrumentation and (A2, M2& C2 apical, middle& cervical levels respectively) after instrumentation.

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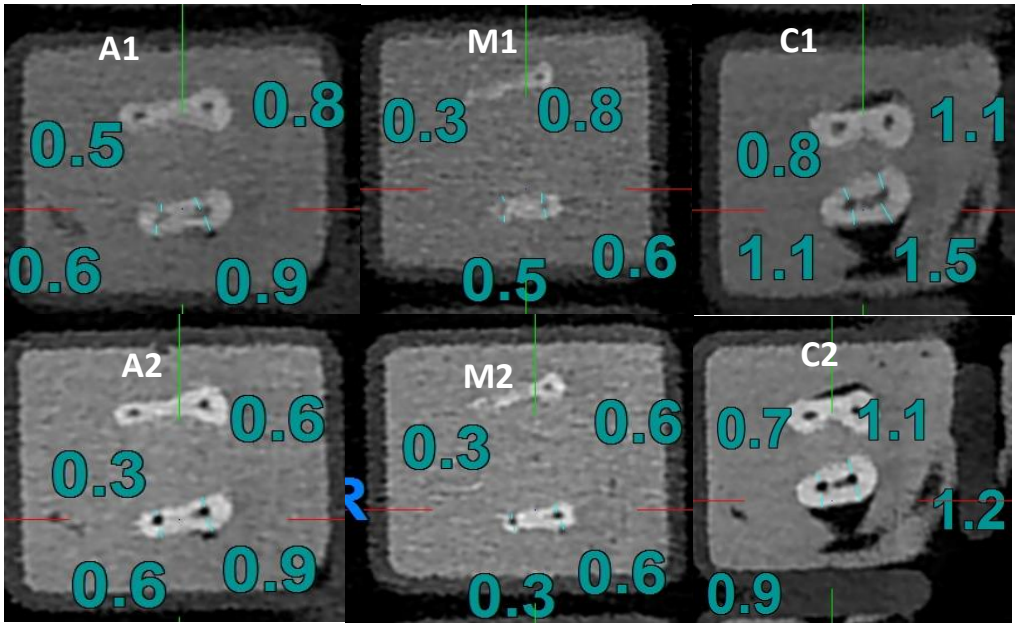

Fig. (3): Dentin thickness for Wave One Gold (A1, M1& C1 apical, middle& cervical levels respectively) before instrumentation and (A2, M2& C2 apical, middle& cervical levels respectively) after instrumentation.

3. RESULTS

Means and standard deviations were determined for each group. The data obtained was subjected to statistical analysis using SPSS (Statistical package for social Sciences) software version 24. The means were compared using one-way ANOVA test,Duncan method under significance level 0.05 and confedance interval of 95% was performed to fined any significant differences between groups.

Canal transportation

Statistical analysis for canal transportation (CT) between the main groups showed a significant difference between group one and group two, group one and group three at (P> 0.05). There was no significant difference in canal transportation measure between group two and group three at (P>0.05) as seen in (table 1).

Statistical analysis showed a significant difference in the measures of CT at the middle level of the canal between group one &group two, group one& group three at (P> 0.05) and no significant difference between group tow& group three, both wave one & one shape showed less CT as compared with K-files as seen in (table 2)

Table (1): The intergroup comparison of canal transportation (mm) between main three groups

Groups	Mean ± S.D.	Std. Error	P.V.
Group1[a]	0.0017 ± 0.15610	0.0142	0.039
Group2[b]	-0.0508 ± 0.2025	0.0185	
Group3[b]	-0.0258 ± 0.1960	0.0179	

Table (2): The intergroup comparison of canal transportation (mm) in the apical, middle and coronal level of the canals

Groups	Levels	Mean ± S.D.	Std. Error	P.V.
Group1	Cervical	-0.035 ± 0.1388	0.0219	0.000
	Middle[a]	-0.0225 ± 0.1476	0.0233	
	Apical	0.0625 ± 0.1659	0.0262	
Group2	Cervical	-0.0225 ± 0.1423	0.0225	
	Middle[b]	-0.18 ± 0.2431	0.0384	
	Apical	0.05 ± 0.132	0.0209	
Group3	Cervical	0.0225 ± 0.1672	0.0264	
	Middle[b]	-0.145 ± 0.2148	0.0340	
	Apical	0.045 ± 0.1449	0.0229	

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Centering ability

Statistical analysis for centering ability (CA) between the main groups showed a significant difference between group one and group two, group one and group three at (P> 0.05). There was no significant difference in centering ability measure between group two and group three at (P>0.05) as seen in (table 3).

There was significant difference in the measures of CA at the apical level of the canal between group one and group two, group one and group three at (P<0.05) and no significant difference between group two and group three, both wave one and one shape showed more centralization as compared with K-files in the apical level of the canal as seen in (table 4).

Table (3): The intergroup comparison of centering ability (mm) between main three groups

Groups	Mean ± S.D.	Std. Error	P.V.
Group1[a]	0.8528 ± 0.9507	0.0868	0.012
Group2[b]	0.5421 ± 0.977	0.0892	
Group3[b]	0.5306 ± 0.9079	0.0829	

Table (4): The intergroup comparison of centering ability (mm) in the apical, middle and coronal level of the canals

Groups	Levels	Mean ± S.D.	Std. Error	P.V.
Group1	Cervical	0.7542 ± 0.8515	0.1346	0.000
	Middle	0.4417 ± 0.4871	0.0770	
	Apical[a]	1.3625 ± 1.1602	0.1834	
Group2	Cervical	0.65 ± 0.7733	0.1223	
	Middle	0.2388 ± 0.8023	0.1269	
	Apical[b]	0.7375 ± 1.2351	0.1953	
Group3	Cervical	0.7208 ± 0.9551	0.1510	
	Middle	0.3542 ± 0.7434	0.1175	
	Apical[b]	0.5167 ± 0.9906	0.1566	

Dentin Thickness

Statistical analysis for dentin thickness between the main groups showed a significant difference between group one and group two, group one and group three at (P> 0.05). There was no significant difference in dentin thickness measure between group two and group three at (P>0.05) as seen in (table 5).

Statistical analysis also showed a significant difference in the measures of dentin thickness at the apical level of the canal between group one and group two, group one and group three at (P> 0.05) and no significant difference between group tow and group three at (P> 0.05) as seen in (table 6)

Table (5): The intergroup comparison of dentin thickness (mm) between main three groups

Groups	Mean ± S.D.	Std. Error	P.V.
Group1[a]	0.2750 ± 0.1404	0.0128	0.000
Group2[b]	0.2175 ± 0.1476	0.0135	
Group3[b]	0.2092 ± 0.1296	0.0118	

Table (6): The intergroup comparison of dentin thickness (mm) in the apical, middle and coronal level of the canals

Groups	Levels	Mean ± S.D.	Std. Error	P.V.
	Cervical	0.27 ± 0.1539	0.0243	0.000
Group1	Middle	0.2775 ± 0.123	0.0194	
	Apical[a]	0.2775 ± 0.1459	0.0231	
	Cervical	0.2325 ± 0.1509	0.0239	
Group2	Middle	0.255 ± 0.1568	0.0248	
	Apical[b]	0.165 ± 0.121	0.0191	
	Cervical	0.2175 ± 0.1217	0.0192	
Group3	Middle	0.25 ± 0.1086	0.0172	
	Apical[b]	0.16 ± 0.1429	0.0226	

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Instrumentation Time

Statistical analysis for instumentation time between the main groups showed a significant difference between group one and group two, group one and group three at (P> 0.05). There was no significant difference in instrumentation time between group two and group three at (P>0.05) as seen in (table 7).

Table (7): The intergroup comparison of instrumentation time (minutes) between main three groups

	Group1	Group2	Group3	P.V
Minutes	7:11 ± 0:15[a]	5:49 ± 0:10 [b]	5:50 ± 0:10[b]	0.000

4. DISCUSSION

The complicated root canal anatomy of deciduous root canals is regarded to be most challenging. [15, 16]To avert and prevent damage of irrupting successor tooth bud during root canal preparation which can occur because of root canal transportation, also time is very important for children root canal procedure that cannot withstand long time treatment procedure that's why this study will be conducted. In the present study, Teeth with at least 7 mm of root length were selected where at minimume two third of root length was the included criteria. Cone Beam Computed Tomographic imaging was used for this study as it gives described three dimensional information as proved by prior studies. The CBCT supply images in orthogonal planes as well as in oblique planes, which is supplemented advantage for determined Dentin thickness, canal transportation and centering ability. [16, 17, 18, 19]

The present study used distals root (distobuccal and distolingual) canals of lower primary second molars these root canals can be without difficulty standardized as a result of their comparable anatomy that is diameter similar to instrumentation with point size 25 files. [20]

In this study the results of transportation showed significant difference between hand K- file group and two rotary single file groups and significant difference showed in middle level of the canals between hand K- file group and One Shape, Wave One Gold groups (table1&2). And this could be explained by fact that One Shape instrument is made up of NiTi alloy and has a tip size of 25µm with fixed taper of 0.06mm such that it has not the same cross sectional model over its complete working length and changeable pitch length. [21, 22] also to electro polishing and elasticity can consequence in well apical progression with smallest weariness and break. It has been interested from different literatures that the canal transportation is more than in instruments with smaller cross-sectional area (0.06 taper for One shape) and instruments with noncutting tips. [23] Additional reason allow meet with this result reciprocation technical skill (wave one Gold move 150 counter-clockwise (CCW) and 30 clockwise (CW) direction) which permit preserve the first form of the canal in tuneled root throughout the preparation. And these results agree with the results of Gandhi and Gandhi, 2011; Kumar et al., 2013 [24, 25] in permanent teeth and Parbhakaret al., 2018 [16] study in primary teeth. And disagree with the results obtained by Nagaraja and Murthy, 2010 [26] study in permanent teeth.

No significant difference was noted among rotary instruments in the three levels of the canal (apical, middle and coronal) in transportation results (table1&2) which is accordance with the results obtained by Navos et al., 2016; D'Amario et al., 2017; Sabri et al, 2018 [27, 28, 29]. And in accordance with the results obtained by Saber et al., 2015; Jellil et al., 2017 [30, 23] in permanent teeth and Parbhakar et al., 2016 [13] study in primary teeth.

Regarding centering ability results showed a significant difference between hand K- file group and One Shape, Wave One Gold groups and significant difference showed in apical level of the canals between hand K- file group and One Shape, Wave One Gold groups (table 3&4), this could be explained by the elasticity and the instrument model permit the files to strictly go after the first root canal way. The twisting and not symmetrical canal walls of deciduous molars are efficiently cleaned by Ni-Ti files because the clockwise direction of the rotary files remove the pulp tissue and dentin outside of the canal as files are binded. [31] Additional cause could be the matter of the metal strand which is commercially called Gold wire manufactures extra clinically best metal than NiTi, of it is own body, through phase-transition spot which have been recognized between martensite and austenite that produces the Primary

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WaveOne Gold file which is more elastisity and more opposed to break. [23, 32] This result agrees with the results obtained by Gandhi and Gandhi 2011; Kumar et al., 2013 [24, 25] study in permanent teeth. No significant difference was noted among rotary instruments in the three levels of the canal (apical, middle and coronal) in centering ability results (table3&4) which is accordance with the results obtained by Jardine et al., 2016; Naseri et al., 2016 [33, 18] in permanent teeth and Parbhakar et al., 2016 [13] study in primary teeth, and disagree with the results of Kangasingam et al., 2016; Navos et al,, 2016 [34, 27] study in permanent teeth.

Regarding Dentin thickness results showed it was significant difference between hand K- file group and One Shape, Wave One Gold groups and significant difference showed in apical level of the canals between hand K- file group and One Shape, Wave One Gold groups (table5&6), this could be explained by deciduous root dentin is not firm and smaller in dense amount than that of the adult root dentin, and the roots are smaller, make thin, and more tunneled, usually with resorption of root tip [15, 35], and different cross-section of One Shape at three variable plain, which respectively replaced from 3 to 2 cutting edges with noncutting points. Additional reason is WaveOne method is described by a triangular cross-section, programed to work with reciprocal motion, a broad one full turn angle in the cutting guidance (counterclockwise) and a fewer one full turn angle in the wear guidance clockwise which end in a stabled force. These results which is accordance with the results obtained by Zamer, 2016 [36] in primary teeth and Shahriari et al., 2009; Chaudhary et al., 2018 [37, 38] in permanent teeth, and disagree with the results of Nagaraja and Murthy, 2010 [26] study in permanent teeth. No significant difference was noted among rotary instruments in the three levels of the canal (apical, middle and coronal) in dentin thickness results (table5&6) which is accordance with the results obtained by Parbhakar et al., 2016 [13] study in primary teeth and Dhingara et al., 2015 [22] study in permanent teeth.

Instrumentation time is relying on the method of performance, knowledgement, type of instruments and used number. In the present study, the instrument time involved active instrumentation as well as the time needed for altering instruments, removing dirt from the flutes of the instruments and root canal irrigation. Katge et al., 2014 [3] concluded the reduced preparation time in manual files more than rotary files. In present study, significant difference in instrumentation time was noted between Hand files group and rotary single file system (table7) the reduced instrumentation time is also evident in other studies done by Govindaraju et al.,2017; Parbhakar et al.,2018; Abdul Karim, 2018 [39,16,40].The less instrumentation time in Waveone Gold and OneShape single-file system could be explained by the fact that reciprocating and conventional continiouse motion does not over engage the dentin, thus reaching the working length faster when compared with hand K-files instrumentation.

NiTi principle element device and files are used very widely in these times. These instruments offer more beneficial; they are more elasticity and have addition cutting productivity. Also, these instruments preserve the primary canal form throughout instrumentation and have a lessen inclination to transport the apical foramen. Anyway, as these techniques too need the employ of tools to make larger canal to a suitable size and taper, they are comparatively time use up. [22]

5. CONCLUSION

From the results of this study, use of single file system in primary teeth results in reduction of instrumentation time and maintains original shape of root canal as compared to Hand K-files.

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پوختە

ئارمانجێن ڤەکولینێ: بو دەستنیشانکرن و بەراوەردیا دناڤبەرا خواربوون و ناڤەندبوون و چڕی یا عاجی و پیڤانا دەمێ ئامادەکرنا کەنالێن ددانان دناڤبەرا میڤرەدێ دەستی و بەراوردیا وی دگەل یێ زڤرۆک یێ ددانێن شیری ب کارئینانا تیشکا دیجیتال و سیتی سکان.

کەرستە و شێوازێ کارکرنێ: ئەڤ ڤەکولینە شێست ددانێن کورسی یێن شیری بێن دەرئینای بخۆڤەدگریت، کو کێمترین رەهێن وان 7ملیمەتربوون، ب شێوەیەکێ ئاڤەرتای بو سێ کۆما هاتینە دابەشکرن و هەر کومەک ژ بیست نموونا پێکهاتبوو، کۆما ئێکێ میڤرەدێن دەستی بو پاقژکرن و ئامادەکرنا رەهێن ددانان، کۆما دوێ میڤرەدێ زڤرۆک بو پاقژکرن و ئامادەکرنا ڕەهێن ددانا هاتبوو ب کارئینان و کۆما سیێ میڤرەدێ تاکانە ب شێوێ پێلا دگەل مەکینا زڤرۆک بو پاقژکرن و ئامادەکرنا ڕەهێن ددانی هاتبوو ب کارئینان، وێنێن تیشکا دیجیتال و سیتی سکان، بەری وپشتی ئامادەکرنا رەهێن ددانان بو هەر کۆمەکێ هاتبوونە گرتن، تێدا خواربوونا ئامیری و ناڤەندبوون و چڕی یا عاجی و دەمێ هەر کۆمەکێ هاتنە هەلسەنگاندن.

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ئەنجام: هندەک جوداهیێن وەیی و ئاماری ل دور دەمێ خواربوونا ئامیرا و ناڤەندبوونا وان دناڤبەرا کۆما ئێکێ و دوێ ل ئاستێن ناڤنجی و دناڤبەرا کۆما ئێکێ و سیێ دا دئاستێ ڤالاهیان دا هاتنە دیتن. هەروەسا هندەک جوداهیێن وەیی و ئاماری د چڕی یا عاجێ ددانی دناڤبەرا کۆما کۆما ئێکێ و دوێ دا هاتنە دیتن، دەمێ ئامادەکرن و پاقژکرنا رەهان د کۆما دوێ و سیێ دا ب بەراوەردی دگەل کۆما ئێکێ کێمتربوو، و چ جوداهی دناڤبەرا کۆما دوێ و سیێ دا نەهاتنە دیتن.
پۆختە: ب کارئینانا ئامیرێن میڤرەدێن تاکانە دبنە ئەگەرێ کێمکرنا دەمی و ئامادەکرنا کەنالێن رەهێن ددانێن شیری و شێوێ سرۆشتی یێ رەهێن ددانان دپارێزن.

خلاصة
اهداف الدراسة: لتحديد و مقارنة مدى الانحراف و التمركز و الكثافة العاجية و قياس وقت تحضير القنوات السنية بين المبرد اليدوي مقارنة مع الماكنة الدورانية نظام البرد الفردي للاسنان اللبنية باستخدام الاشعة الرقمية و التصوير المقطعي بالاشعة المخروطية.
المواد و طريقة العمل: تتضمن الدراسة ستون سناً مقلوعاً (الطاحن الخلفي اللبني) مع الحد الادنى لطول الجذر 7 ملمتر, مقسماً عشوائياً على ثلاث مجاميع و كل مجموعة تتضمن عشرون عينة, حيث ان المجموعة الاولى استخدمت فيها ادوات البرد اليدوي لتنظيف و تحضير قنوات جذر السن والمجموعة الثانية استخدمت فيها اداة البرد المفرد ذات الدوران الكامل مع الماكنة الدورانية لتنظيف و تحضير قنوات جذور الاسنان و المجموعة الثالثة استخدمت فيها اداة البرد الفردي ذات الدوران الترددي مع الماكنة الدورانية لتنظيف و تحضير قنوات جذور الاسنان. صور الاشعة الرقمية و التصوير المقطعي بالاشعة المخروطية أُخذت قبل و بعد تحضير قنوات جذور الاسنان لكل مجموعة. تم تقييم مدى انحراف الاداة و تمركز الاداة و الكثافة العاجية والوقت لكل مجموعة.
النتائج: النتائج: وجدت فروق معنوية و احصائية في مدى انحراف الاداة و تمركز الاداة بين المجموعة الاولى و الثانية عند المستوى الوسطي و بين المجموعة الاولى والثالثة عند المستوى القمي. وجدت فروق معنوية و احصائية في الكثافة العاجية السنية بين المجموعة الاولى و الثانية, و بين المجموعة الاولى والثالثة عند المستوى القمي. وقت تحضير و تنظيف الجذور كان اقل في المجموعة الثانية و الثالثة مقارنة بالمجموعة الاولى و لم يظهر فروق بين المجموعة الثانية و الثالثة.
الخلاصة: استخدام ادوات نظام البرد الفردي يؤدي الى تقليل الوقت و تحضير القنوات الجذور الاسنان اللبنية محافظا على الشكل الطبيعي لجذور الاسنان.