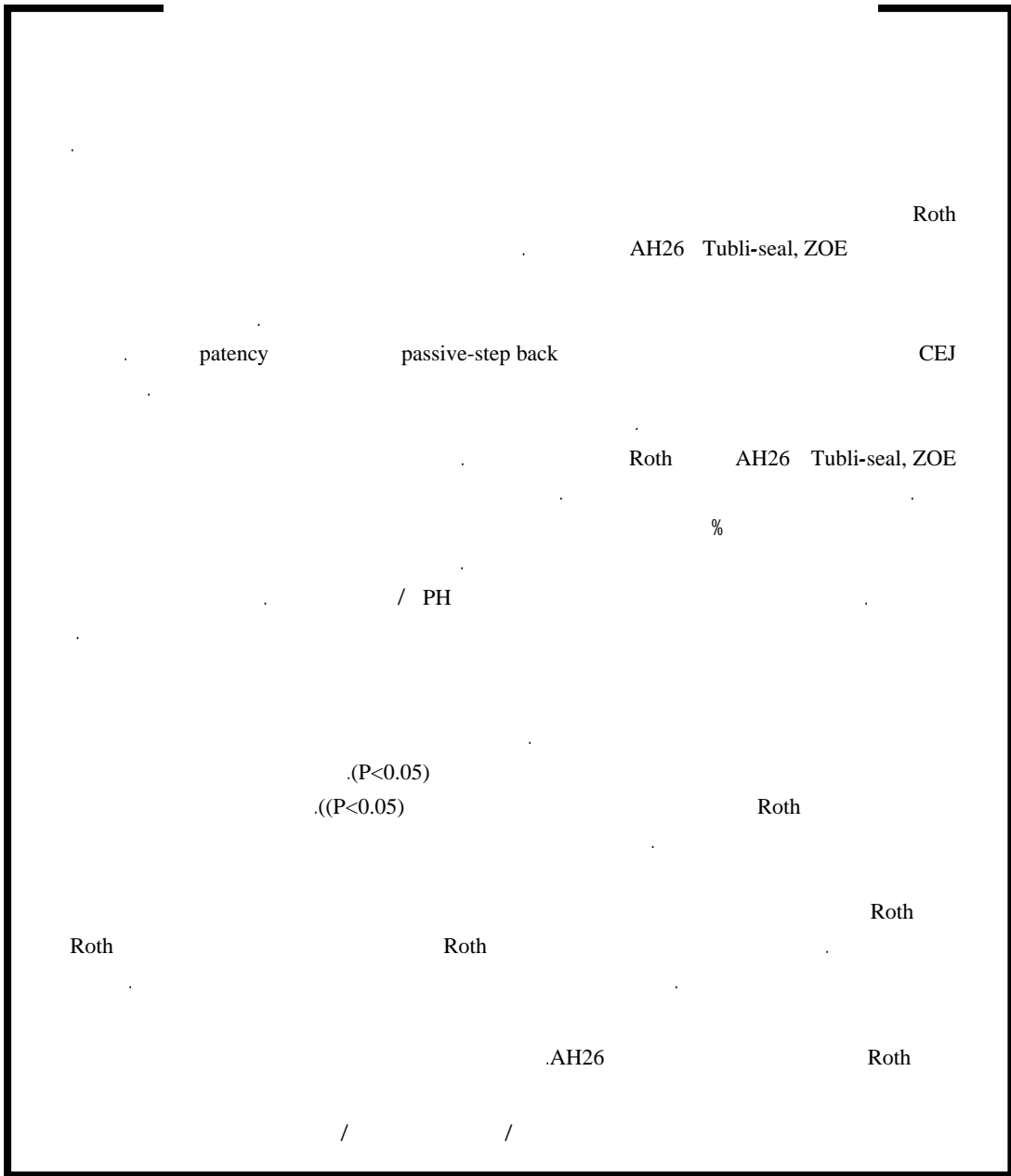
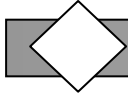


**Roth**

**AH26 Tubli-seal, ZOE**

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CEJ

passive step back

Patency

(k type Mani)

Gates glidden

step back

patency

( )

(ZOE)

:A

(Detray Densply, U.K) AH26: B

(Kerr, Italy) Tubli-seal: C

Roth :D

(Maillefere swiss)

(.)

Walmongkol

Seal Apex Tubli Seal AH26

AH26

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Bou Dagher Yared

AH26 Roth 801

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Kerr

Tubli Seal AH26 ZOE

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AH26

Roth

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AH26

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/ CEJ

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(Olympus 7SI 328 Germany)

Archive of SID

Roth

Tubli-seal

$P < 0.05$

/

PH

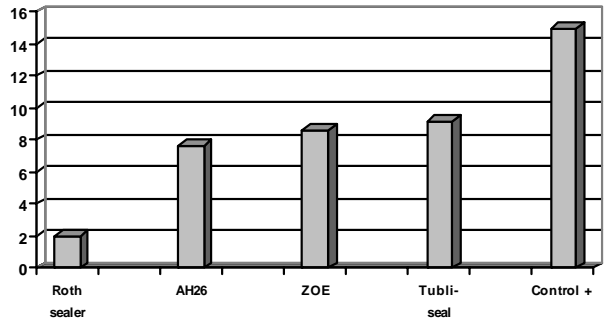
cc

(BHG-Tixette II Germany)

Roth

(AH26, Tubli seal, ZOE)

$P < 0.05$



( )  
 Kucukay  
 Fulckerson  
 Dickson & Peters

( )  
 Reader .

	N	Mean	SD	Max	Min
ZOE	/	/	/	/	/
Tubli-seal	/	/	/	/	/
Roth-sealer	/	/	/	/	/
AH26	/	/	/	/	/

( )  
 Kucukay  
 Goldman  
 Master .( )  
 Torabinejad Higa

passive step back  
 .( )

( )  
 patency Buchanan  
 .( )

Starkey .  
 % PH  
 PH  
 PH .( ) /  
 Baumgarthner



/

ZOE

Tubli-seal AH26

Sandler

:

ZOE

( )

Tagger

( )

Kucukay ( )

Fulkerson

stereomicroscope

AH26-Tubli-Seal, ZOE, AH26

(.)

Schilder Wiener

ZOE

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ZOE

Tubli-seal

ZOE

AH26

Roth

setting

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ZOE

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Roth sealer

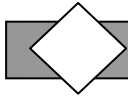
Roth

AH<sub>26</sub>, ZOE)

(Tubli seal

Tubli-seal ZOE AH26

ZOE



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## Patency

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A comparative study of sealing ability of Roth Sealer with ZOE, Tubli-Seal and AH26

Ghaziani P,\* D.D.S, Endodontist  
Associate Professor of Endodontics Dept., School of Dentistry  
Mashhad University of Medical Sciences, Mashhad, Iran.  
Fallah Rastegar A, D.D.S, Endodontist  
Associate Professor of Endodontics Dept., School of Dentistry  
Mashhad University of Medical Sciences, Mashhad, Iran.  
Javidi M, D.D.S, Endodontist  
Assistant Professor of Endodontics Dept., School of Dentistry  
Mashhad University of Medical Sciences, Mashhad, Iran.

Abstract

**Introduction:** Apical seal is an important factor in successful root canal therapy. Still there are controversies about sealing ability of various sealers materials. Recently Roth-Sealer which is very popular in Europe and U.S.A has been produced by an Iranian company.

The purpose of this study was to compare sealing ability of Iranian Roth Sealer with ZOE, Tubli-Seal and AH26.

**Materials & Methods:** In this study we used 100 fresh extracted single root teeth of human. After cutting the crown from CEJ and determination of working length, canal preparation was done with passive step back technique using patency file.

The teeth randomly were divided into 6 groups. Four groups with 20 teeth for experimental groups and two groups with 10 teeth as positive and negative control groups. Obturation was done with lateral condensation in four groups with Roth Sealer, ZOE, tubli-Seal and AH26. The coronal seal was achieved with amalgam.

In positive control group, we didn't use sealer. After preparation all teeth were incubated at 37 °C temperature and 100% humidity for 72 hours. All teeth were covered with two coats of nail polish and sticky wax except 2mm of apical part.

In the group of negative control, all of the tooth surface were covered.

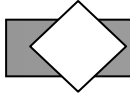
Dye penetration was measured using Indian ink (PH=6.2). After splitting the teeth longitudinally, dye penetration was measured by stereomicroscope. Data were analyzed with ANOVA and DUNCAN tests.

**Results:** Results showed that dye penetration in positive control group was complete and significantly more than other groups while in negative control group, no dye penetration was observed and in Roth Sealer group, it was significantly less than other groups ( $P < 0.05$ ). There was no significant difference between ZOE, Tubli Seal and AH26.

**Conclusion:** Iranian Roth sealer proved to be appropriate for root canal therapy compared to other 3 sealers. So, this can be considered as a substitute for foreign Roth sealer which is very expensive. Performing histologic studies on it for confirmation is recommended.

**Key words:** Roth Sealer, ZOE, Tubli-Seal, AH26.

\*Corresponding Author



AH26 Tubli-seal, ZOE

Roth

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