

# Endodontiai izolálás, praeendodontiai felépítés. Trepanációs kavitás kialakítása

Krajczár Károly

PTE KK Fogászati és Szájsebészeti Klinika

## QUALITY GUIDELINES

# **Quality guidelines for endodontic treatment: consensus report of the European Society of Endodontology**

European Society of Endodontology

### Isolation of tooth

Root canal treatment procedures should be carried out only when the tooth is isolated by rubber dam to: prevent salivary and bacterial contamination, prevent inhalation and ingestion of instruments and prevent irrigating solutions escaping into the oral cavity.



# AAE POSITION STATEMENT

*The following statement was prepared by the AAE Clinical Practice Committee. AAE members may photocopy this position statement for distribution to patients or referring dentists.*

## DENTAL DAMS

The American Association of Endodontists is dedicated to excellence in the art and science of endodontics and to the highest standards of patient care. The accumulated clinical knowledge and judgment of the practitioner supported by evidence-based scientific research is the basis for endodontic treatment. **Tooth isolation using the dental dam is the standard of care; it is integral and essential for any nonsurgical endodontic treatment.**

**A dental dam is a latex or nonlatex sheet** with a hole punched in the material to allow placement around the tooth during the endodontic procedure. One of the primary objectives of endodontic treatment is **disinfection** of the root canal system. **Only dental dam isolation minimizes the risk of contamination of the root canal system** by indigenous oral bacteria. The dental dam also offers other benefits, such as **aiding in visualization** by providing a clean operating field and **preventing ingestion or aspiration of dental materials, irrigants and instruments.**

# Guide to Clinical Endodontics

Sixth Edition

## Dental Dams

### Indications for Treatment

Tooth isolation using the dental dam is the standard of care; it is integral and essential for any nonsurgical endodontic treatment. One of the primary objectives of endodontic treatment is disinfection of the root canal system. Only dental dam isolation minimizes the risk of contamination of the root canal system by indigenous oral bacteria. The dental dam also offers other benefits, such as aiding in visualization by providing a clean operating field and preventing ingestion or aspiration of dental materials, irrigants and instruments.



No rubberdam,  
no endo

Geyo Clay



praxisgyakorlat aktuális kérdései  
Pécs, 2019. december 13-15.

# BMJ Open

## Discordance between presumed standard of care and actual clinical practice: the example of rubber dam use during root canal treatment in the National Dental Practice-Based Research Network

Gregg H Gilbert,<sup>1</sup> Joseph L Riley,<sup>2</sup> Paul D Eleazer,<sup>3</sup> Paul L Benjamin,<sup>4</sup> Ellen Funkhouser,<sup>5</sup> National Dental PBRN Collaborative Group

**Conclusions:** General dentists have substantial variation in attitudes about rubber dam use. Beliefs that rubber dam use is not effective, inconvenient, time-consuming, not easy to place or affected by patient factors, were independently and significantly associated with lower rubber dam use. These attitudes explain why there is substantial discordance between presumed standard of care and actual practice.

**ASKS DENTIST IF**



**HE EVER WORKS WITH RUBBER  
DAM**

RESEARCH ARTICLE

Open Access



# Why dentists don't use rubber dam during endodontics and how to promote its usage?

Ahmad A. Madarati

**Table 1** Frequency of rubber dam use

Respondents	Use of rubber dam (%)		Total
	Yes	No	
Endodontists	28 (84.8 %)	5 (15.2 %)	33 (100 %)
Endodontics Postgraduate Students	9 (100 %)	0 (0 %)	9 (100 %)
GDPs	33 (21.6 %)	120 (78.4 %)	153 (100 %)
Other	8 (57.1 %)	6 (42.9 %)	14 (100 %)
Total	78 (37.3 %)	131 (62.7 %)	209 (100 %)



**RUBBER DAM?**

**"AIN'T NOBODY GOT TIME 4 THAT"**

memegenerator.net

**Table 2** Reasons for not using rubber dam (%)

Respondents	Difficult use	Time consuming	Not available at work	Others	Total
Endodontists	0	0	80	20	100
GDPs	23.3	16.7	39.2	20.8	100
Others	0	16.7	33.3	50	100
Total	21.4	16	40.5	22.1	100

**Table 7** Rubber dam use according to type (place) of work (%)

Respondents	Private	Academic	Government
GDP	60.8 (9.7)	0.6	38.3 (37.9)
Endodontists	27.3 (55.6)	24.2 (100)	48.5 (93.8)
Endo Postgraduate students	0 (0)	0 (0)	37.5 (100)
Other	31.6 (33.3)	21.1 (66.7)	42.1 (80)
Total	51.5 (14.8)	5.6 (90)	40.3 (53.7)

The values in parentheses represent proportion of respondents who currently use RD

# Attitudes and use of rubber dam by Irish general dental practitioners

C. D. Lynch<sup>1</sup> & R. J. McConnell<sup>2</sup>

<sup>1</sup>Division of Adult Dental Health, School of Dentistry, Cardiff University, Cardiff, UK; <sup>2</sup>University Dental School & Hospital, Wilton, Cork, Ireland

Reported use (percentage in brackets refers to number of cases)	Anterior teeth, n (%)	Premolar teeth, n (%)	Molar teeth, n (%)
Never (0%)	114 (39)	84 (32)	51 (26)
Rarely (1–25%)	51 (17)	36 (14)	24 (12)
Occasionally (26–50%)	6 (2)	18 (6)	15 (7)
Often (51–75%)	18 (6)	6 (2)	12 (6)
Mostly (76–99%)	27 (9)	36 (14)	18 (9)
Always (100%)	78 (27)	84 (32)	78 (40)
Total	294 (100)	264 (100)	198 (100)



# THE USE OF RUBBER DAM AMONG CZECH DENTAL PRACTITIONERS

*Martin Kapitán, Zdeňka Šustová*

Charles University in Prague, Faculty of Medicine and University Hospital Hradec Králové, Czech Republic: Department of Dentistry

**Tab. 2:** Reported use of rubber dam in different materials and treatment

Material/ treatment	Regularly n (%)	Occasion- ally n (%)	Never n (%)
Amalgam	10 (2)	43 (10)	392 (88)
Composite resin	39 (9)	100 (22)	309 (69)
Glassionomer cement	16 (4)	64 (14)	366 (82)
Root canal treatment	42 (9)	76 (17)	329 (74)

# Influence of rubber dam on objective and subjective parameters of stress during dental treatment of children and adolescents – a randomized controlled clinical pilot study

PATRICIA AMMANN<sup>1</sup>, ANDREAS KOLB<sup>2</sup>, ADRIAN LUSSI<sup>1</sup> & RAINER SEEMANN<sup>1,3</sup>

<sup>1</sup>Department of Preventive, Restorative and Pediatric Dentistry, University of Bern, Bern, Switzerland, <sup>2</sup>Dental Practice Dr. Andreas Kolb, Heide (Holstein), Germany, and <sup>3</sup>Universitätsmedizin Charité, Berlin, Germany

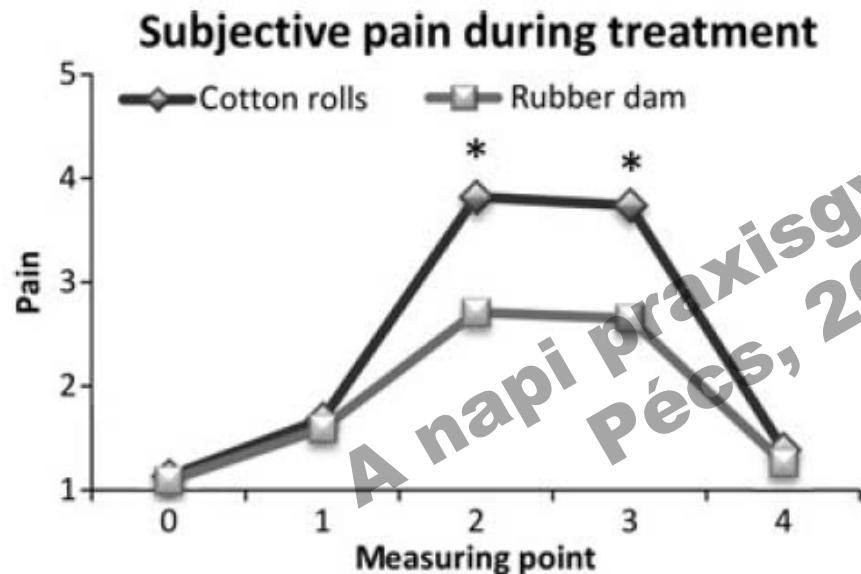


Fig. 1. Patient's subjective pain perception (1 = no pain and 10 = strong pain) (\* $P < 0.05$ ). See Table 1 for explanation of measuring points.

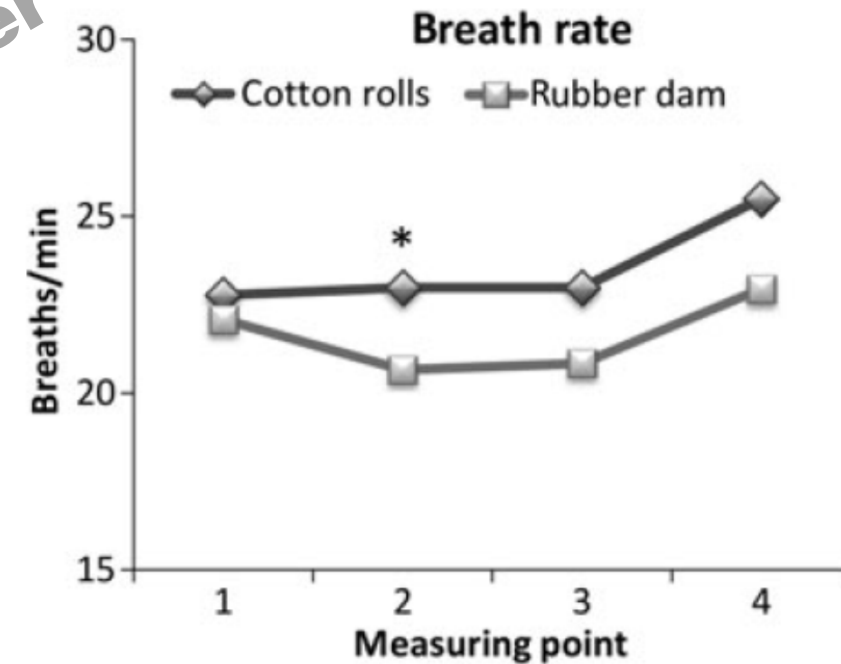
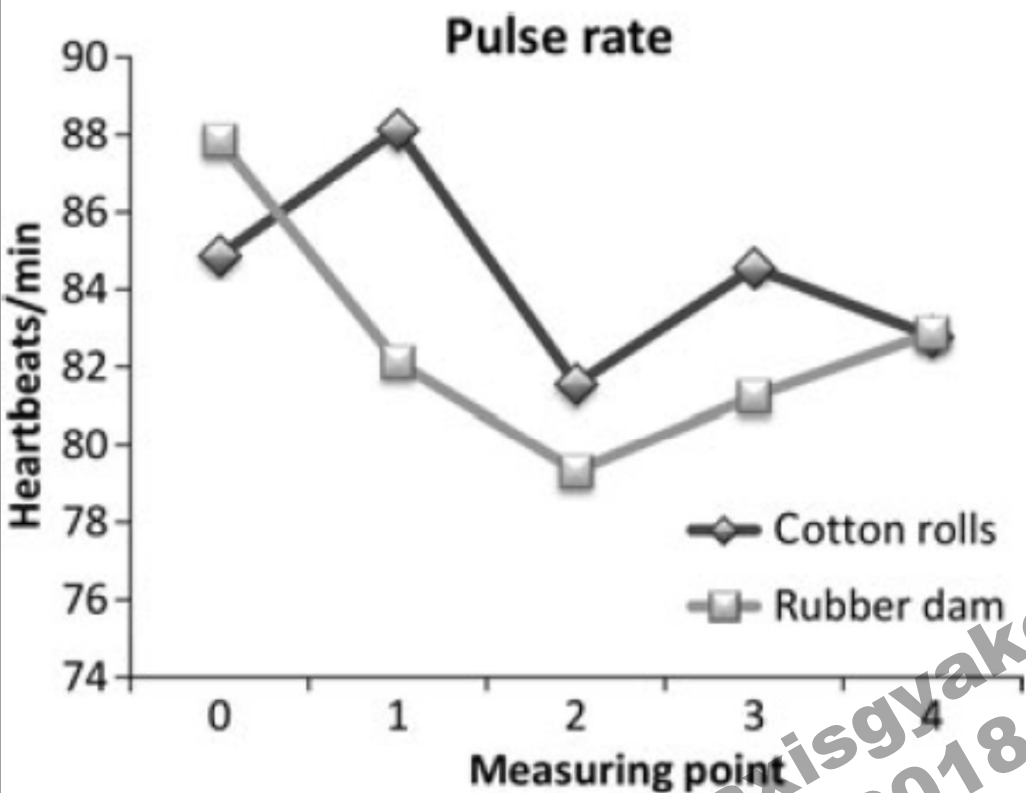


Fig. 2. Patient's breath rate (\* $P < 0.05$ ).



3. Patient's pulse rate.

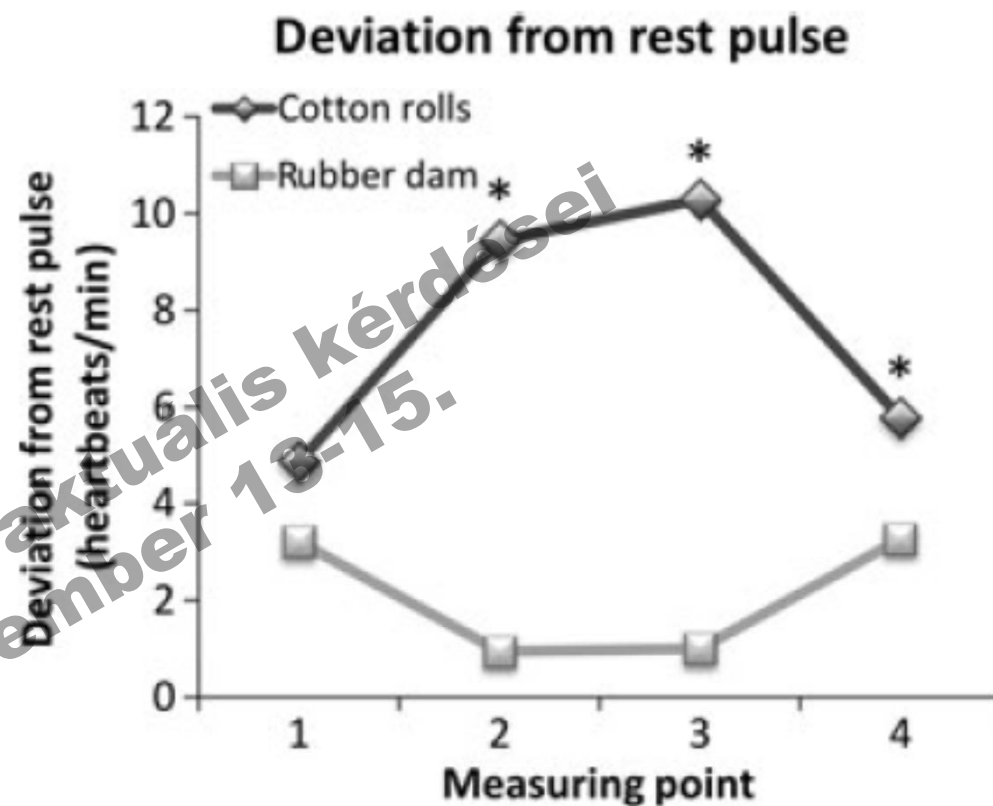


Fig. 5. Deviation from operator's rest pulse (\* $P < 0.05$ ).

**Conclusion.** Isolation with rubber dam caused less stress in children and adolescents compared to relative isolation with cotton rolls if applied by an experienced dentist.

**I DON'T KNOW WHO YOU ARE**

**BUT IF YOU DON'T USE PROTECTION  
I WILL FIND YOU AND I WILL EDUCATE YOU**

Figyelembe venni:

Latex **allergia**: szilikon lepedő.

**Szájlégzők**: „elcsúsztatott” keret elhelyezés a szájnyílás részleges szabadonhagyásával

**Biszfosfonát** terápia

Review

# **Bisphosphonates and their clinical implications in endodontic therapy**

International Endodontic Journal, 46, 391–398, 2013

A.-T. Moinzadeh<sup>1</sup>, H. Shemesh<sup>1</sup>, N. A. M. Neiryneck<sup>2</sup>, C. Aubert<sup>3</sup> & P. R. Wesselink<sup>1</sup>

Endodontic therapy has not been identified as a significant risk factor for promoting BRONJ and is therefore considered as the favoured alternative to extraction



A one minute mouth rinse with chlorhexidine prior to the start of the treatment would lower the bacterial load of the oral cavity (Cousido *et al.* 2010) and aim at decreasing the bacteremia caused by any soft tissue trauma.



Working under aseptic conditions is mandatory. This includes steps such as the removal of caries and leaking restorations, the cleaning of the tooth and the placement of a rubber dam prior to the start of the intracanal procedures. The proper adaptation of the rubber dam should be given to avoid any damage to the gingival tissues during the placement of a rubber dam clamp (Kyrgidis 2009). An alterna-



# Kofferdam felhelyezése Szárnyas technika







9T



2AT



2T



56T



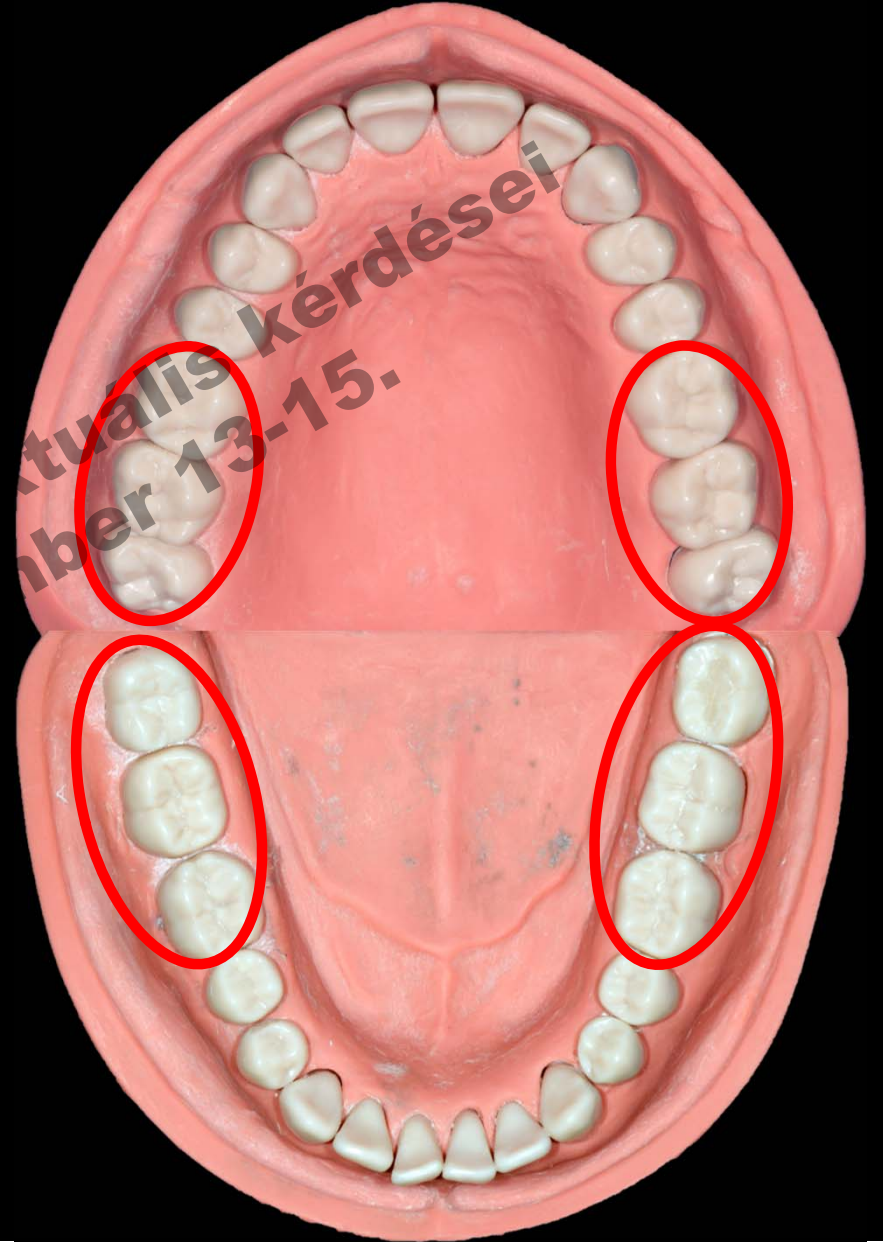
14T

Anapi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

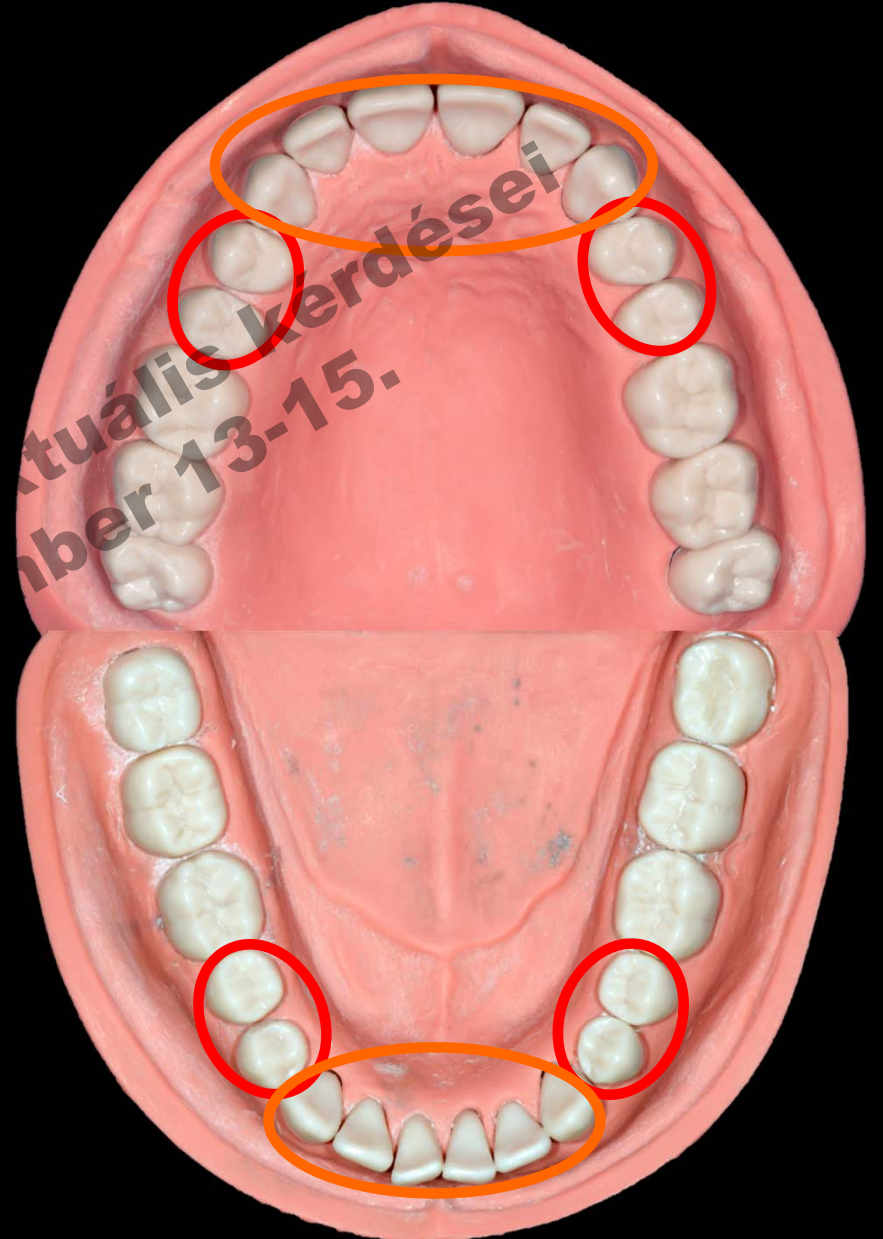


?

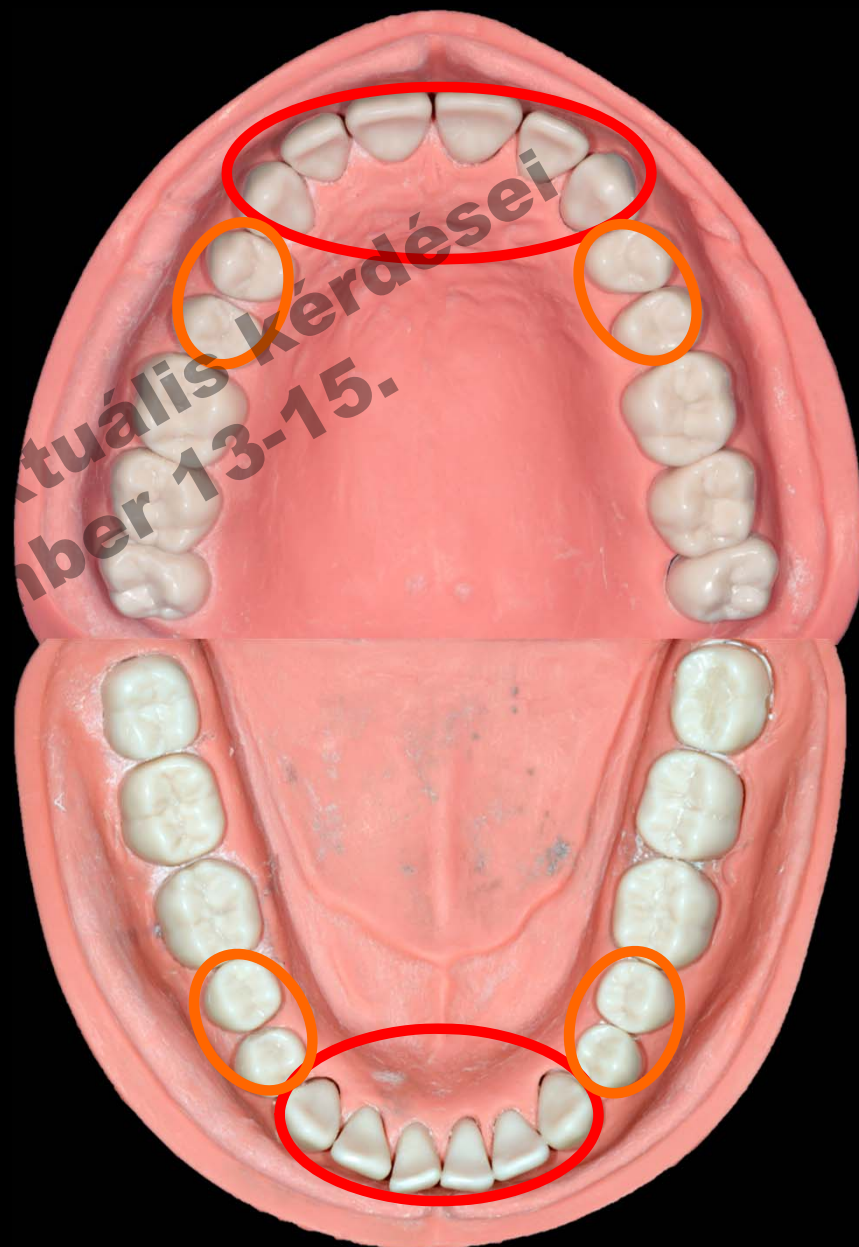












# Tömítő anyagok

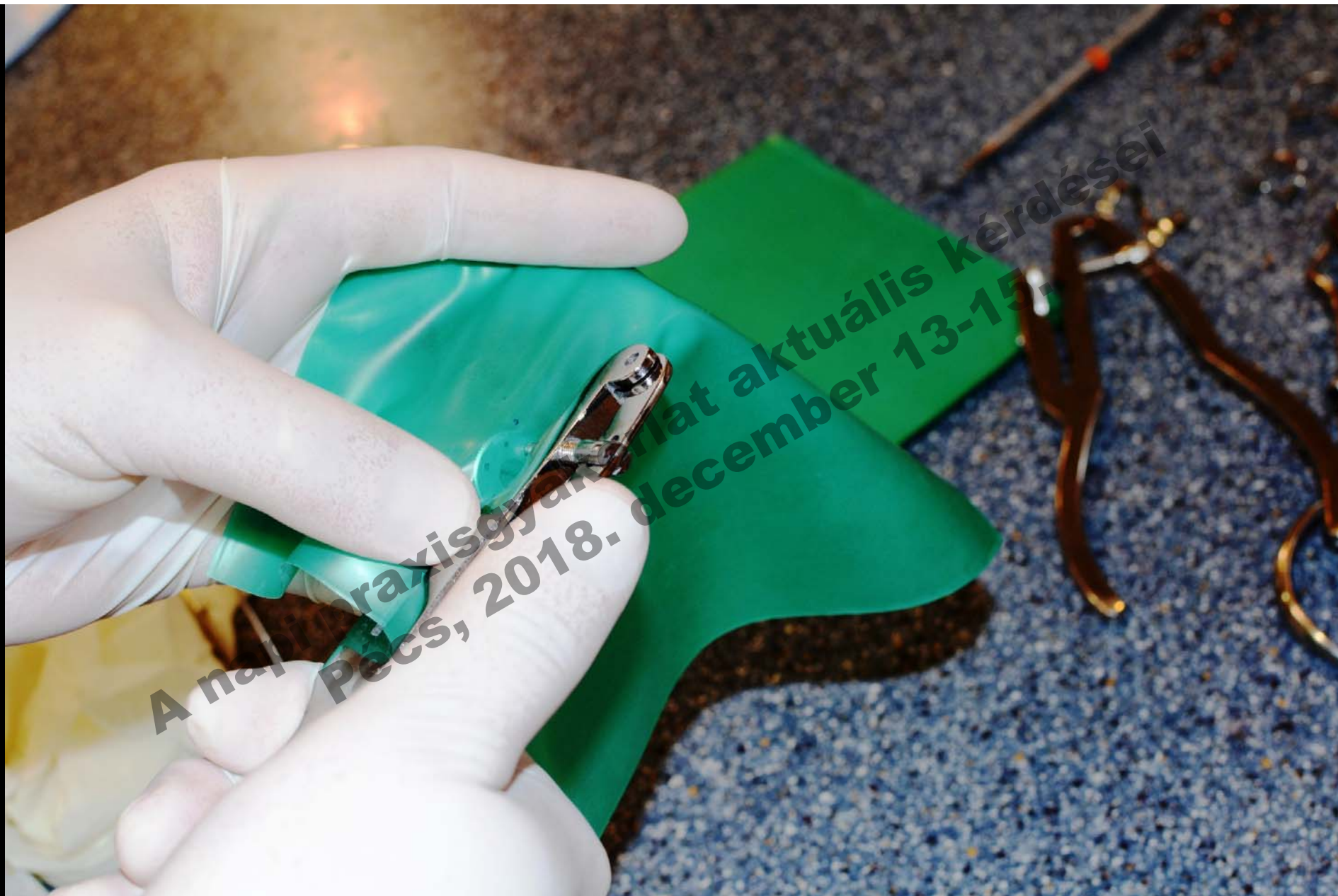






napi praxisgyakorlat aktuális kérdései  
 Pécs, 2018. december 13-15.





A naplóról a gyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



**A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.**



A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.







A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



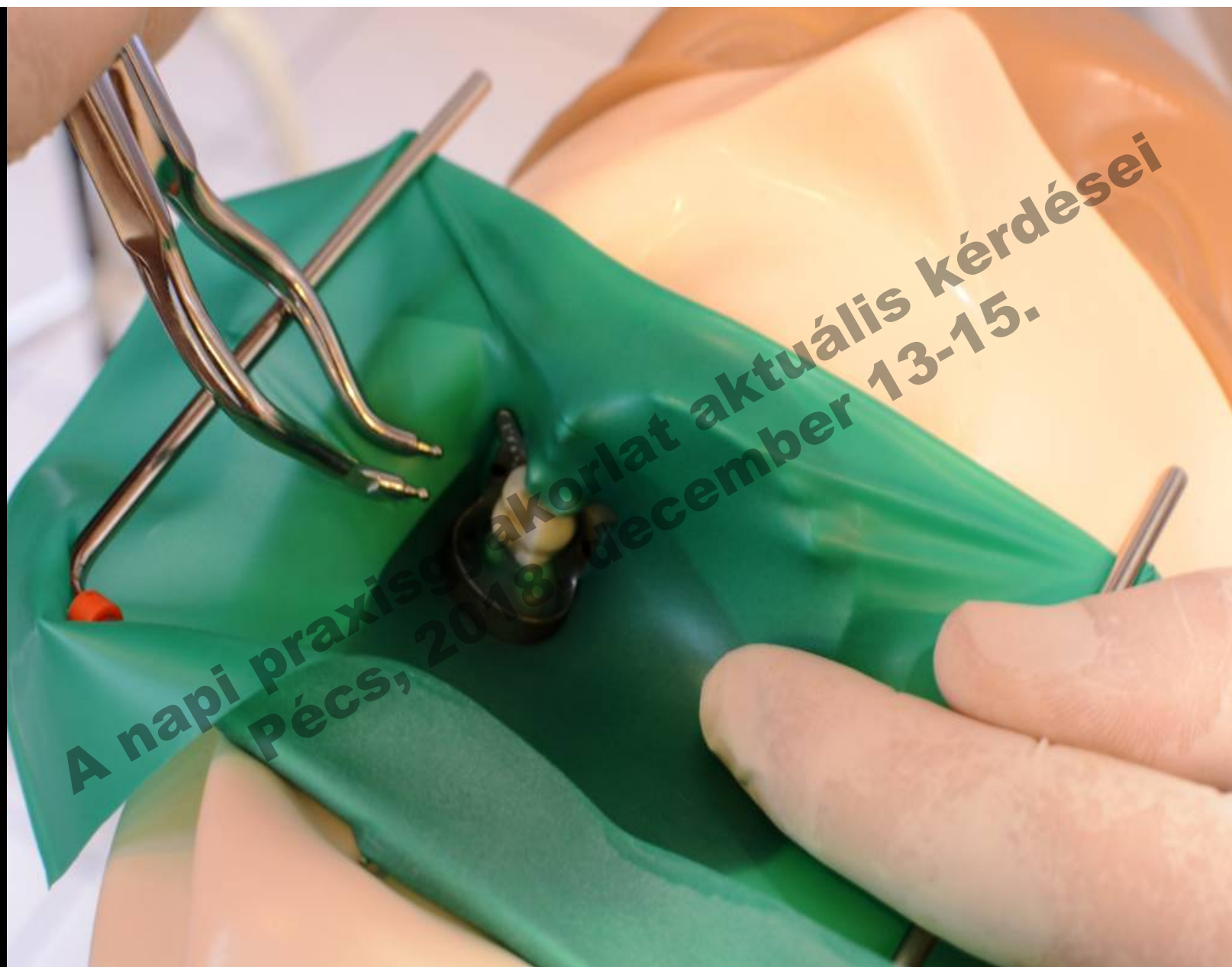
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





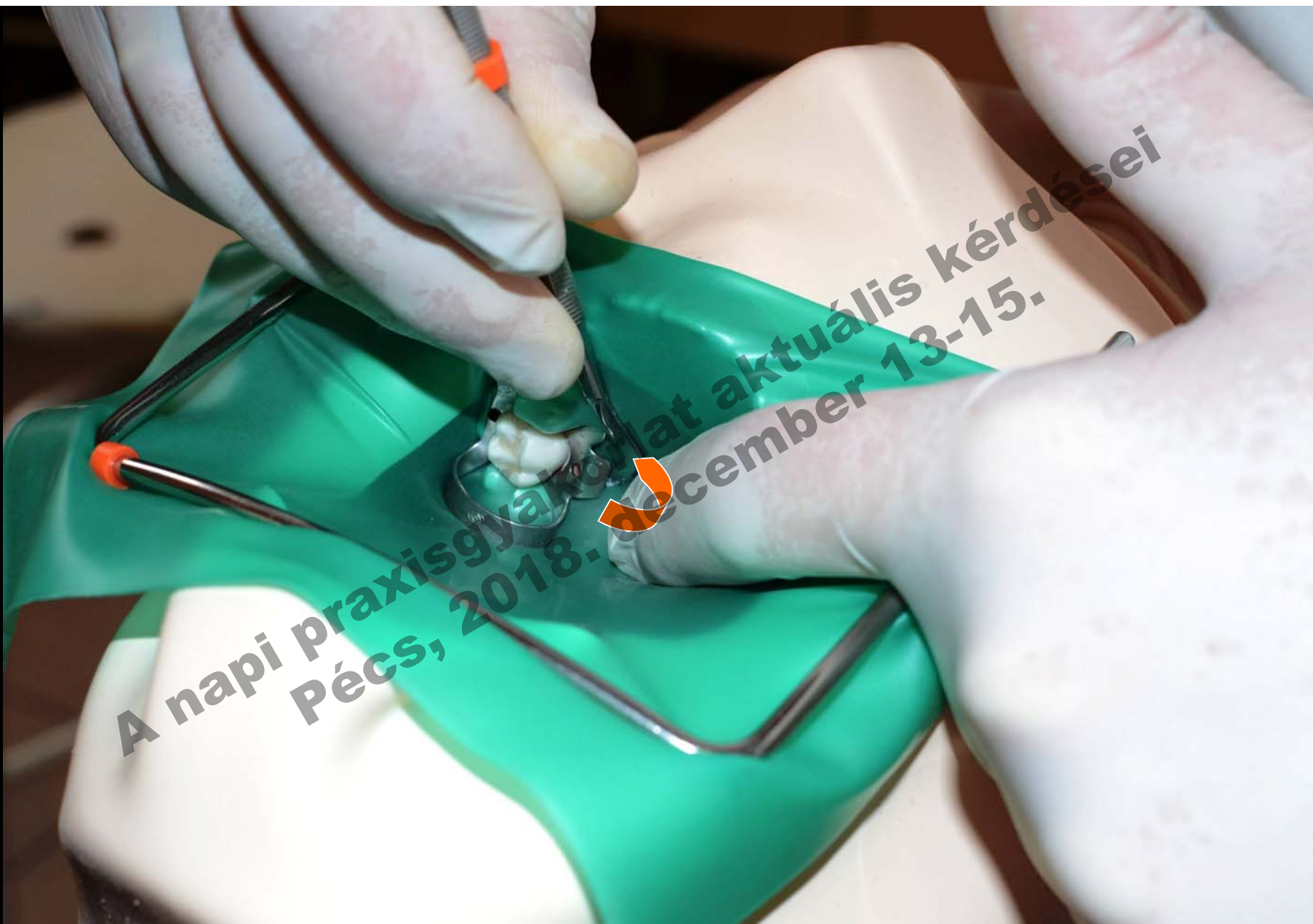
A napi praxis gyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





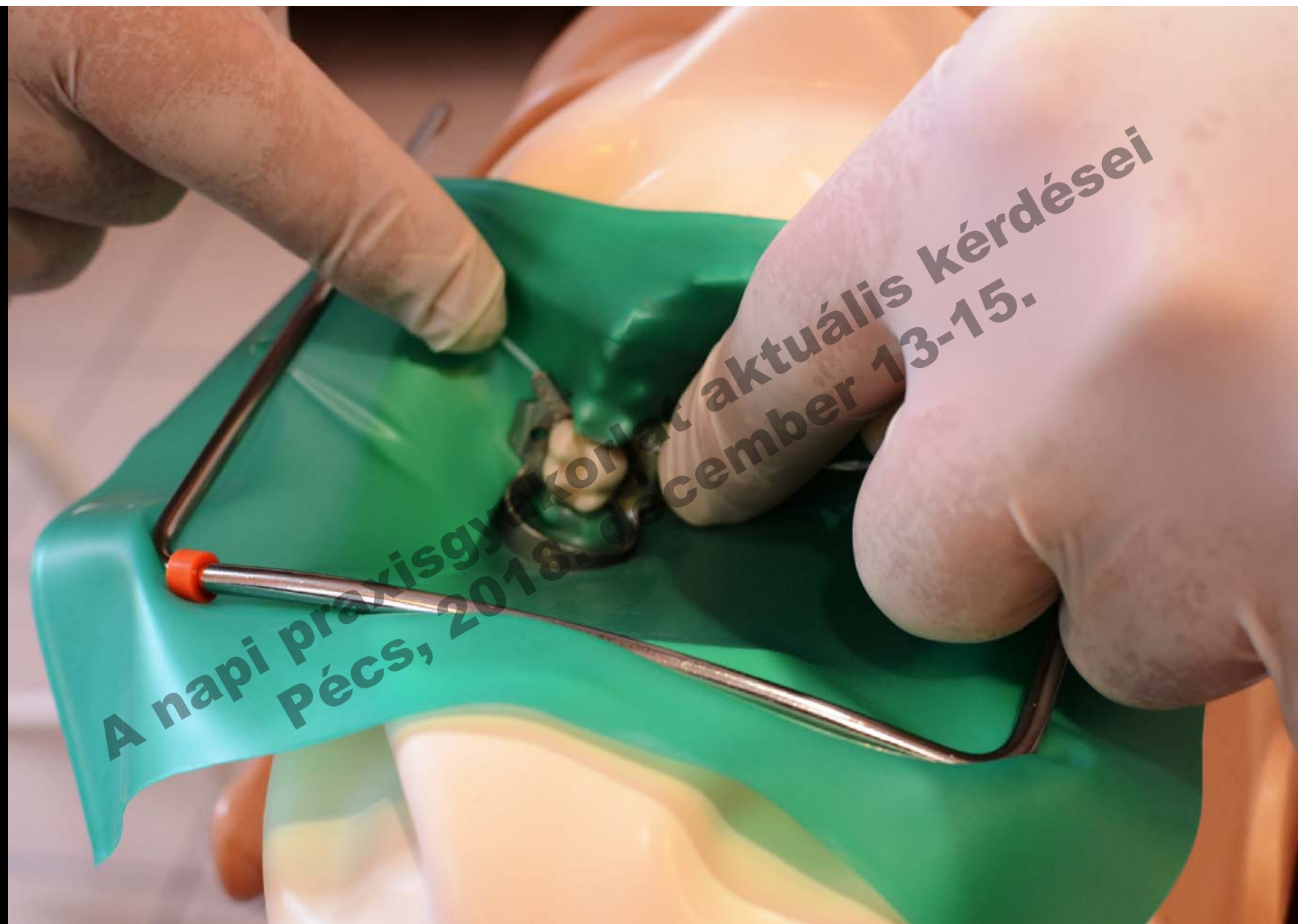


A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



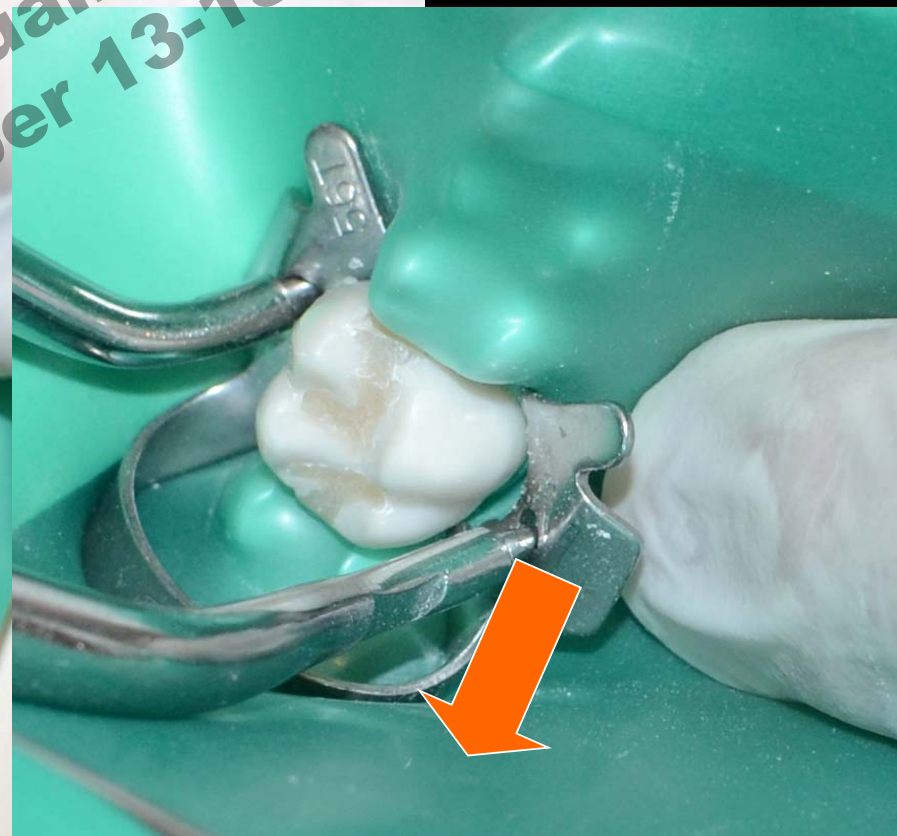


A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

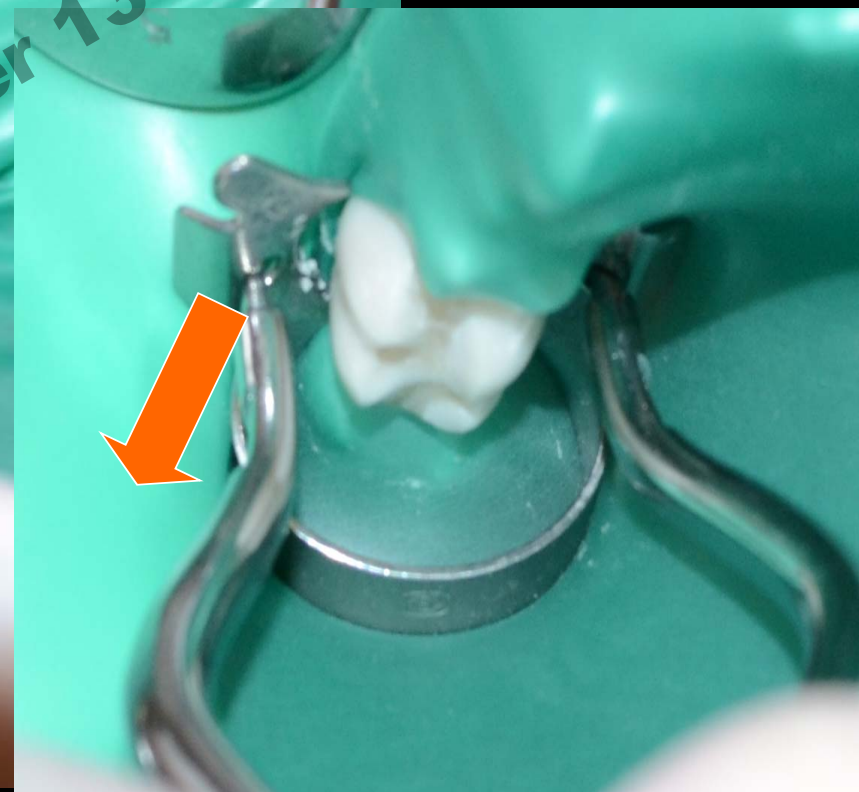
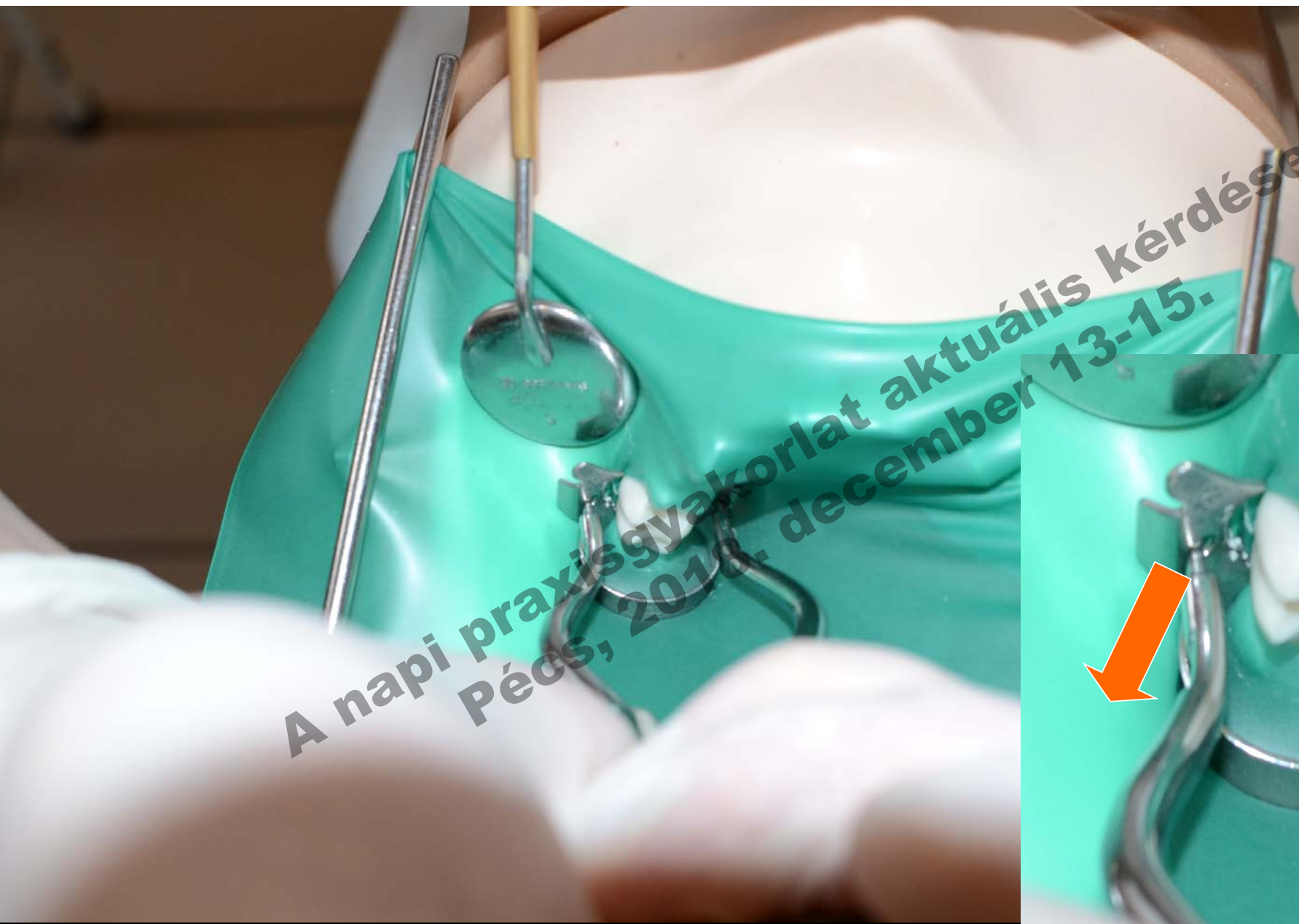


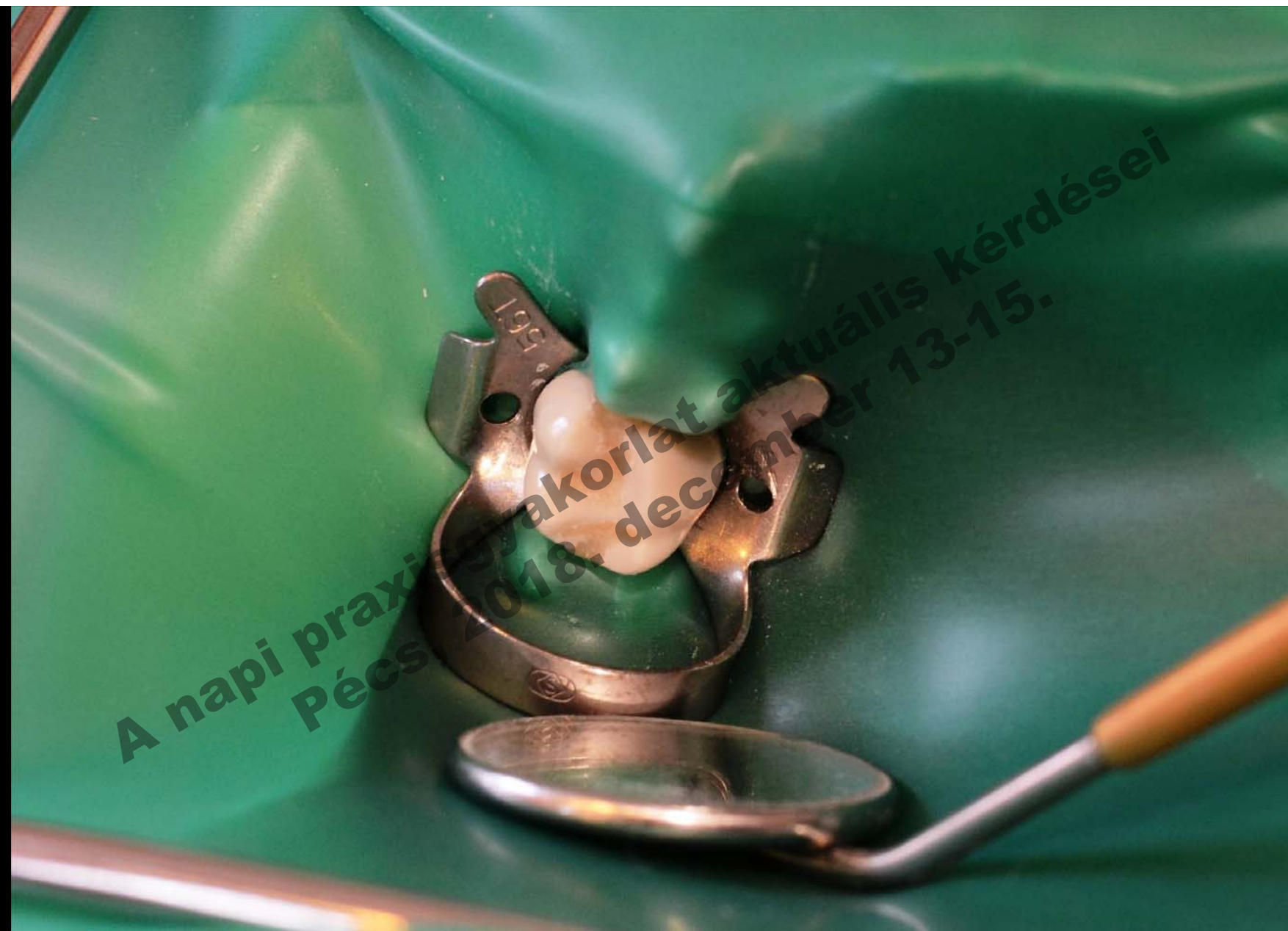
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





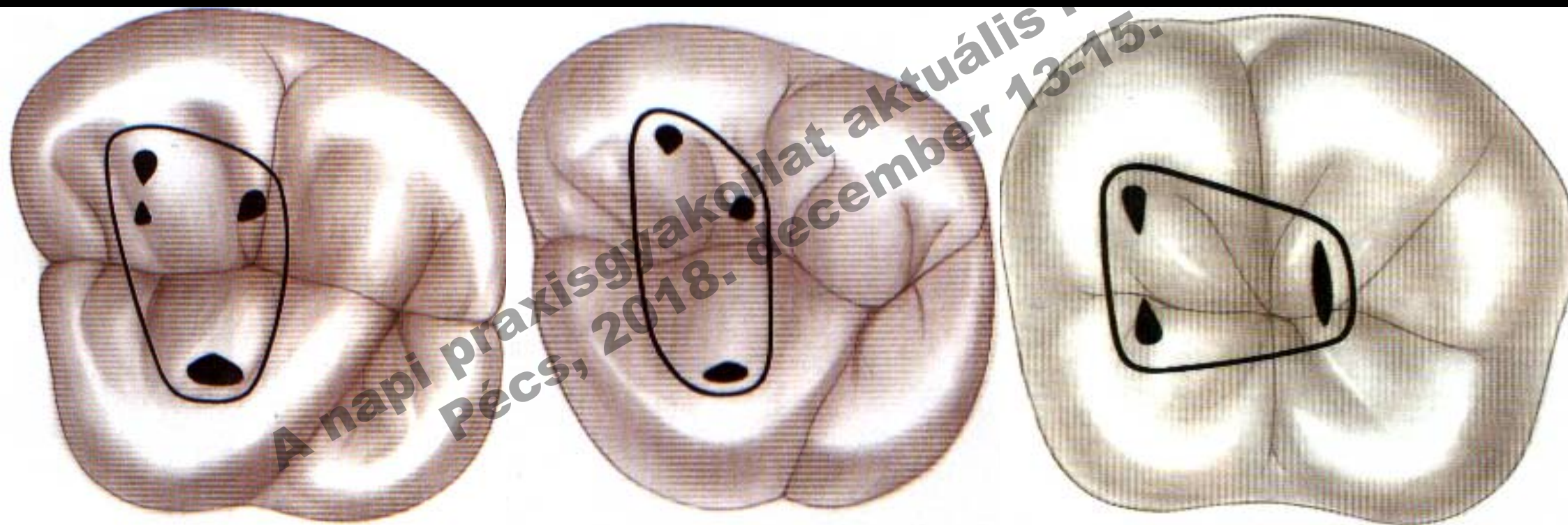




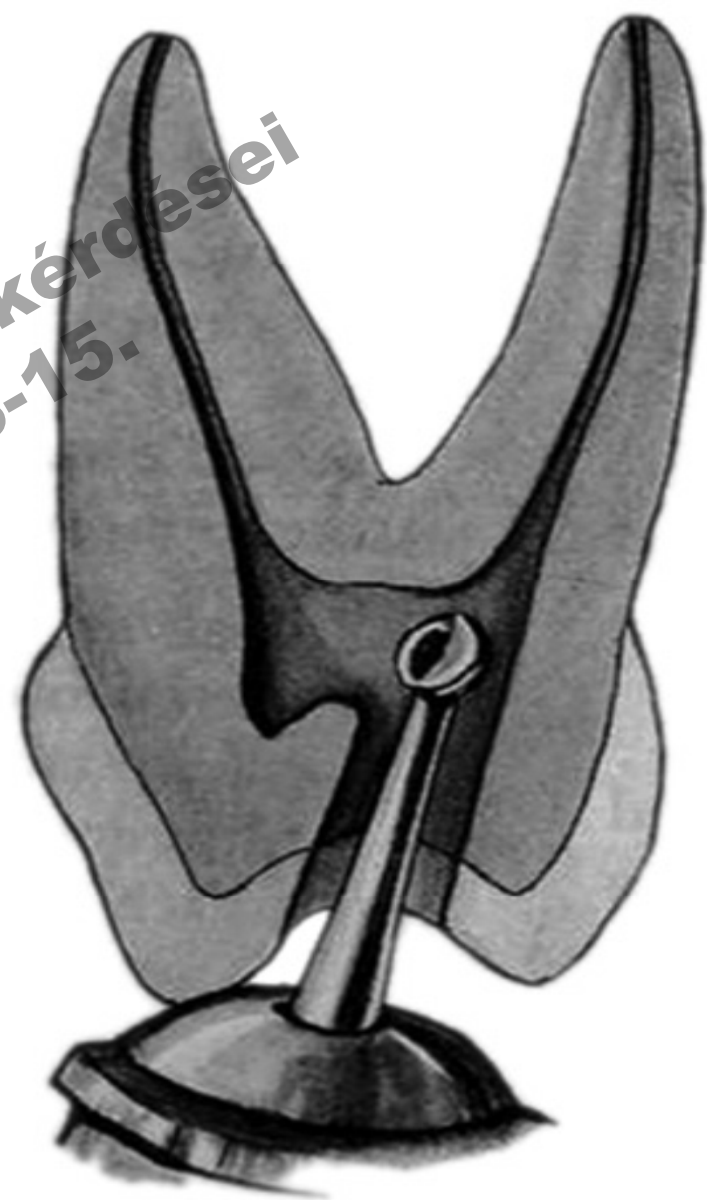
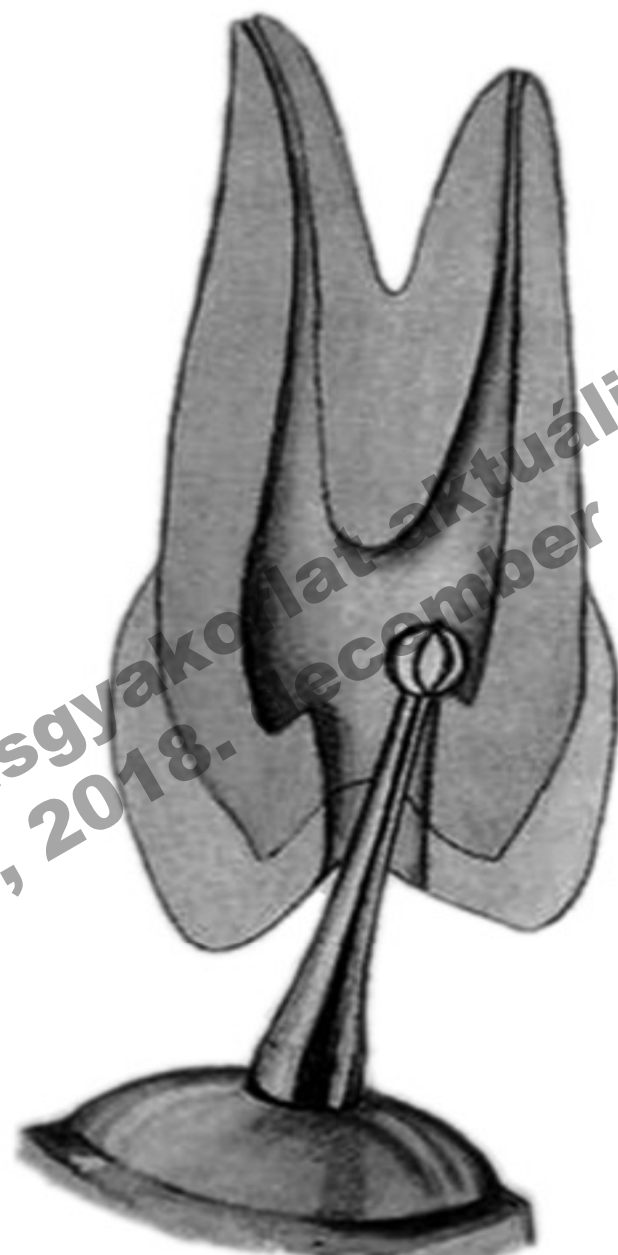
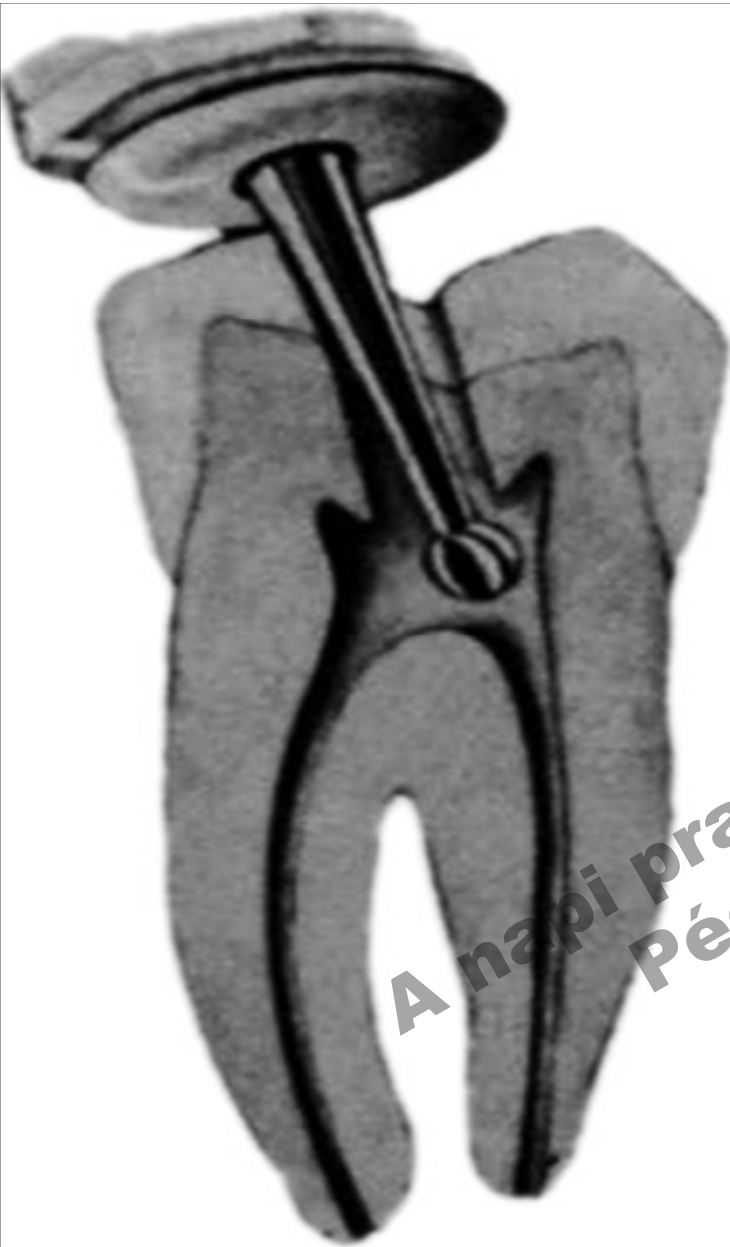




# Trepanációs üreg kialakítása

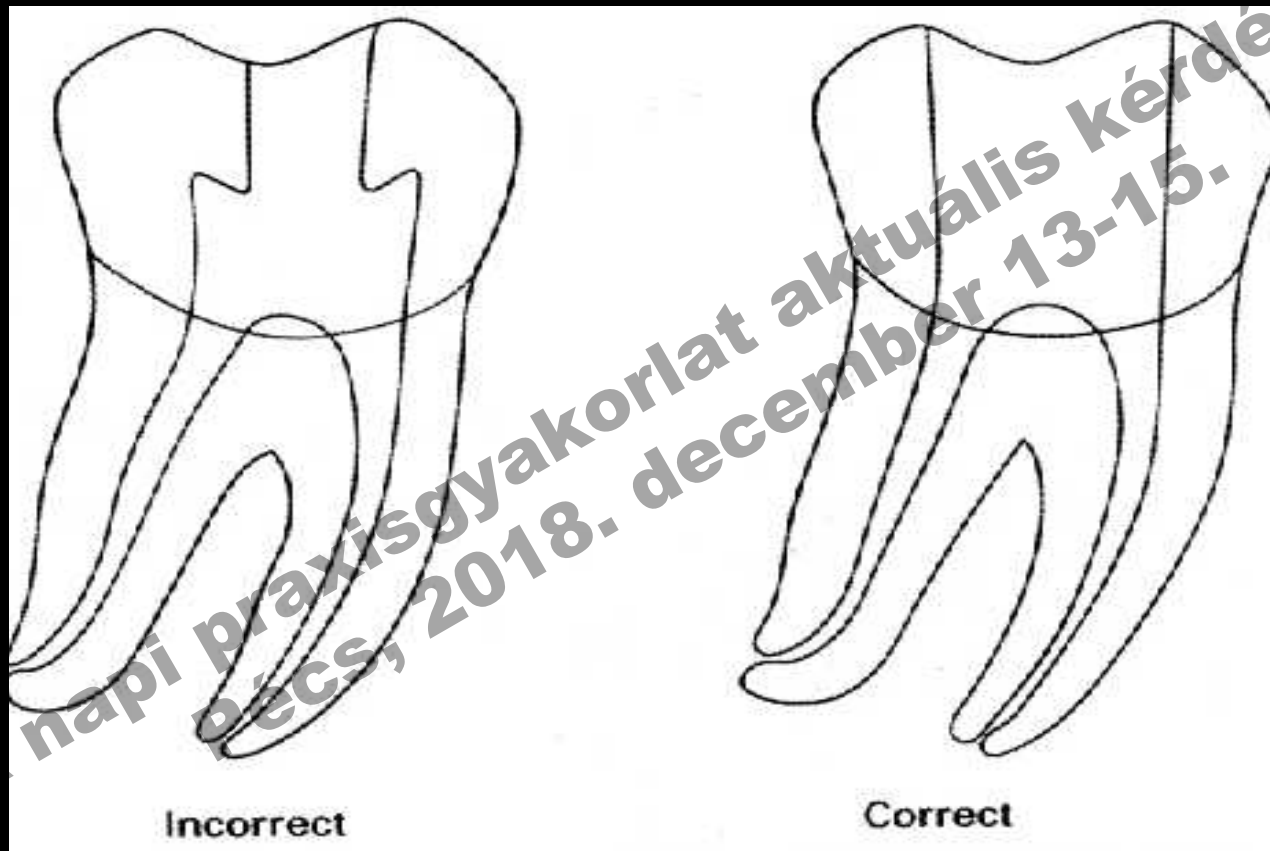




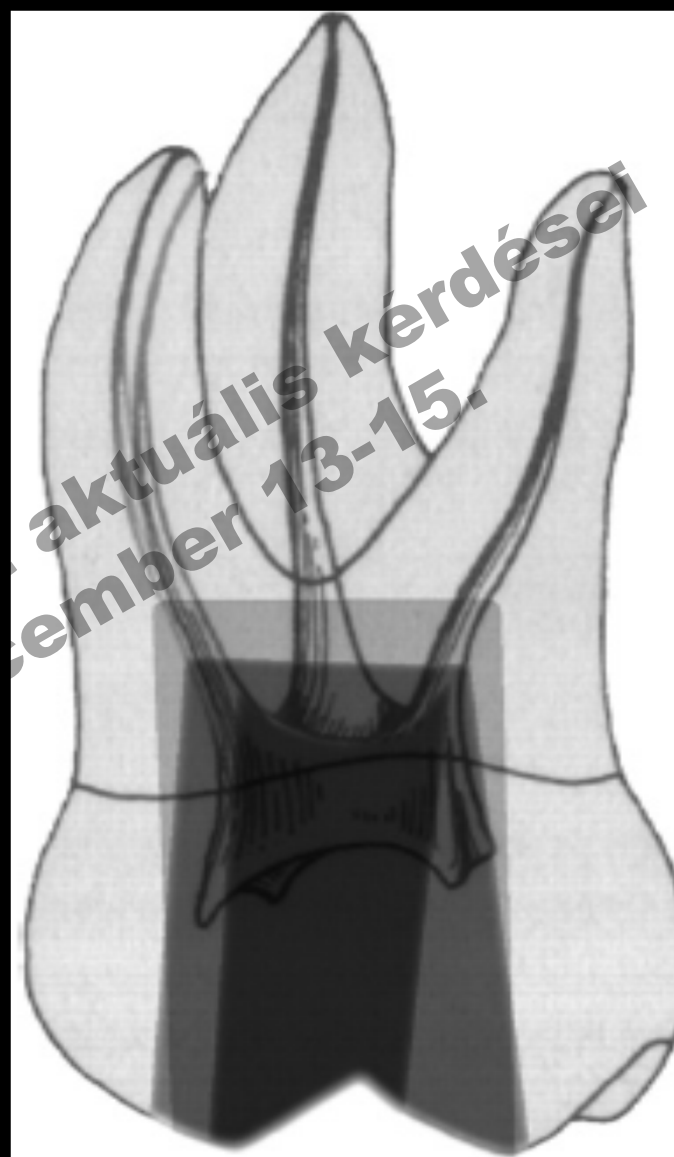
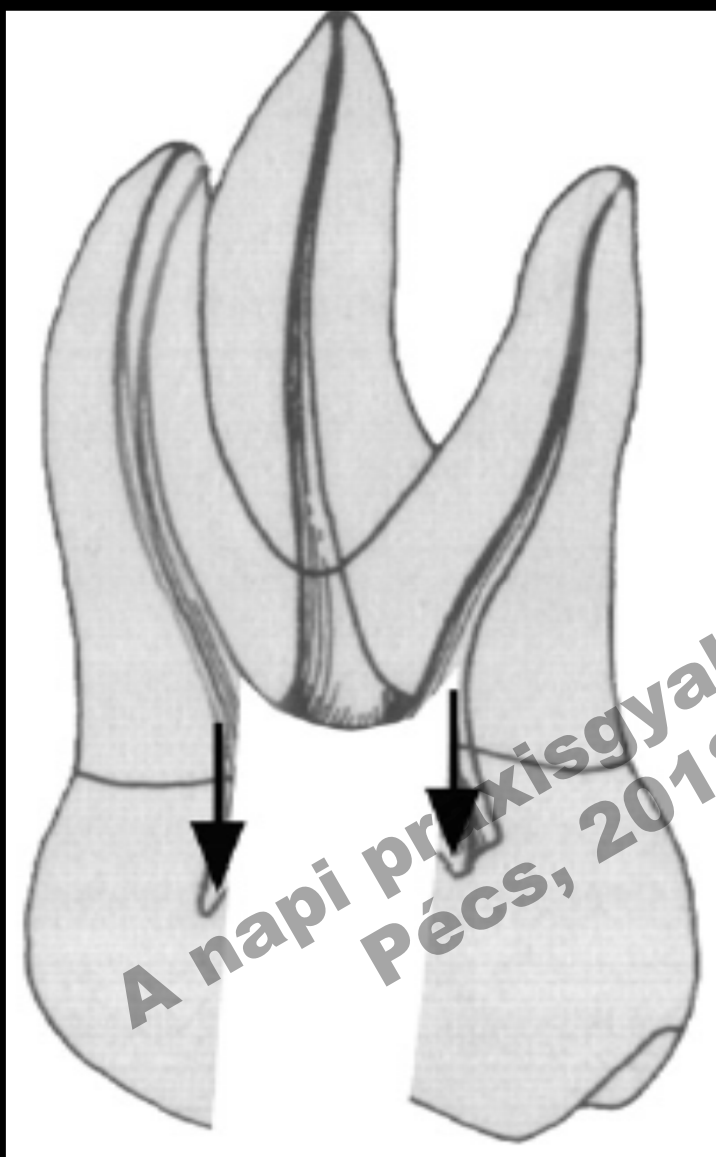


A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

## Trepanációs nyílás klasszikus kialakítása

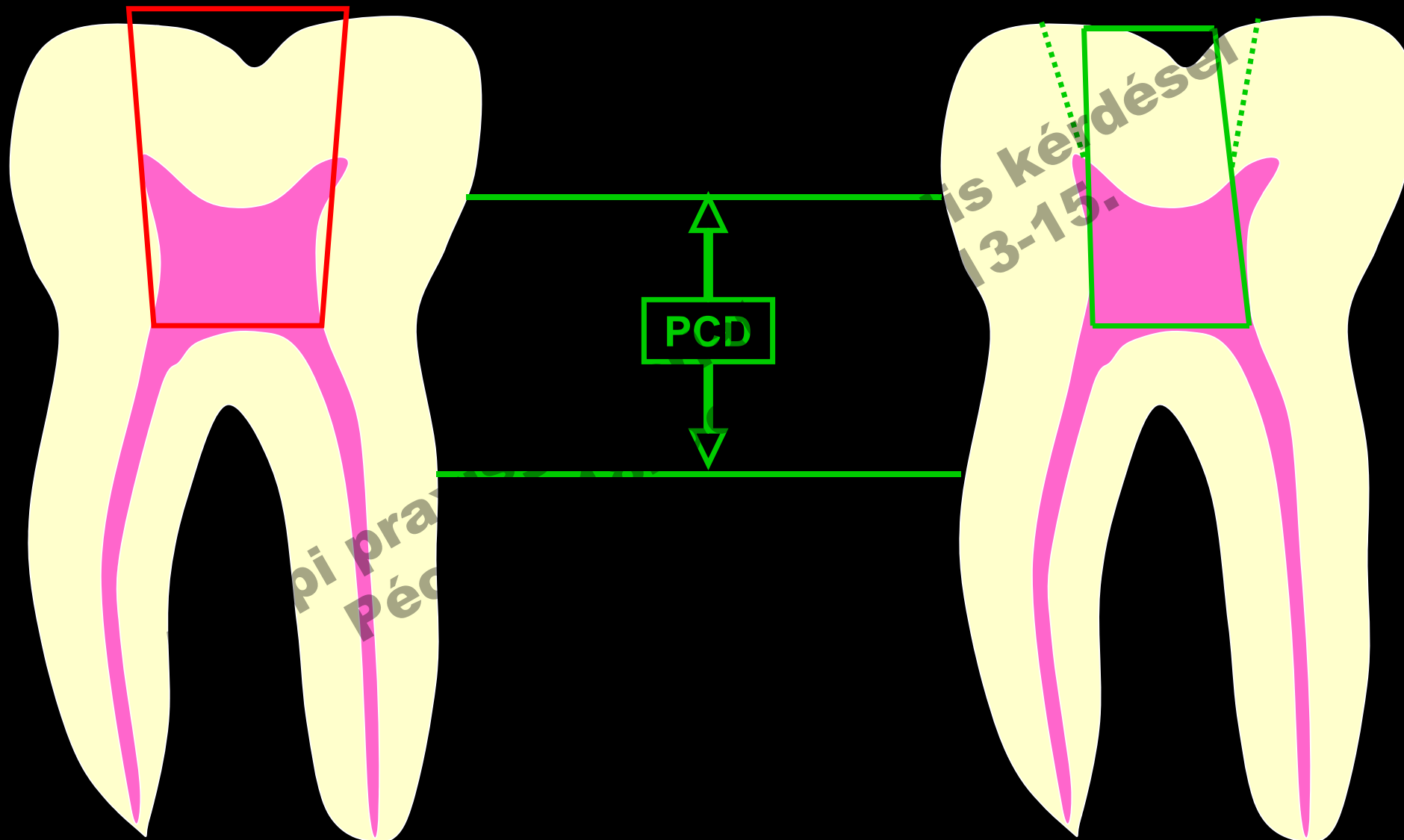


Trepanációs nyílás szövetkímélő kialakítása

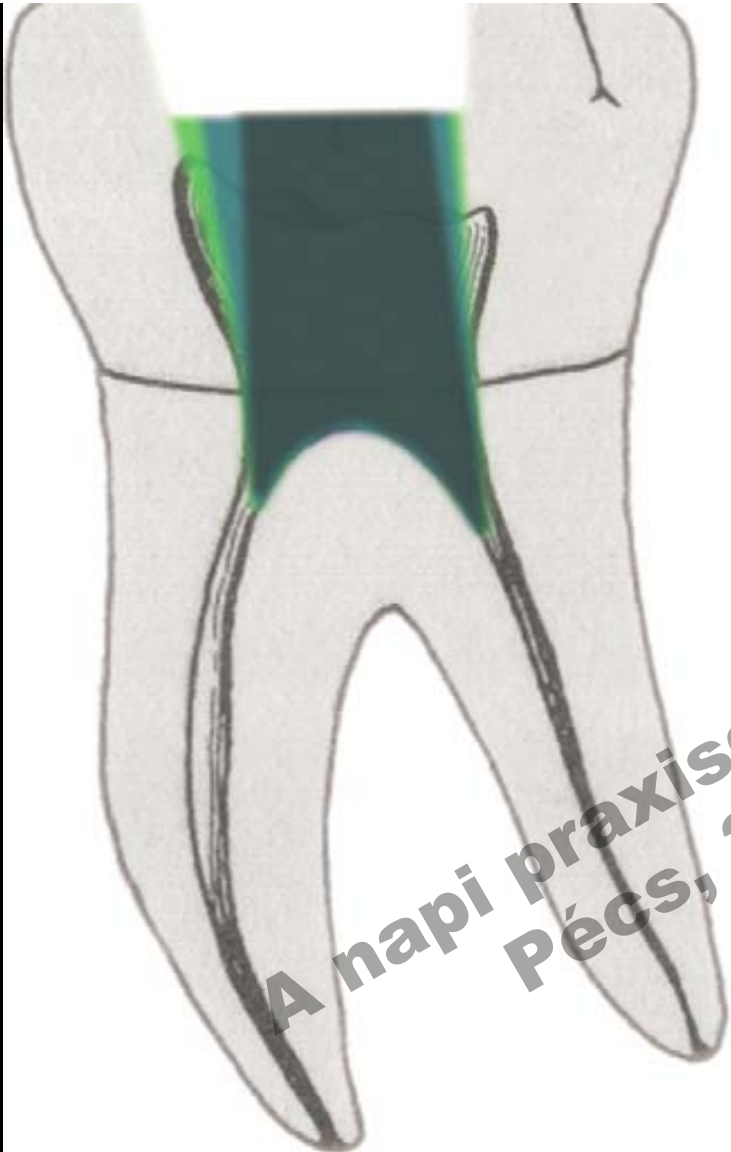


- Clark D, Khademi JA. Modern molar endodontic access and directed dentin conservation. Dent Clin N Am 2010;54: 249-53.



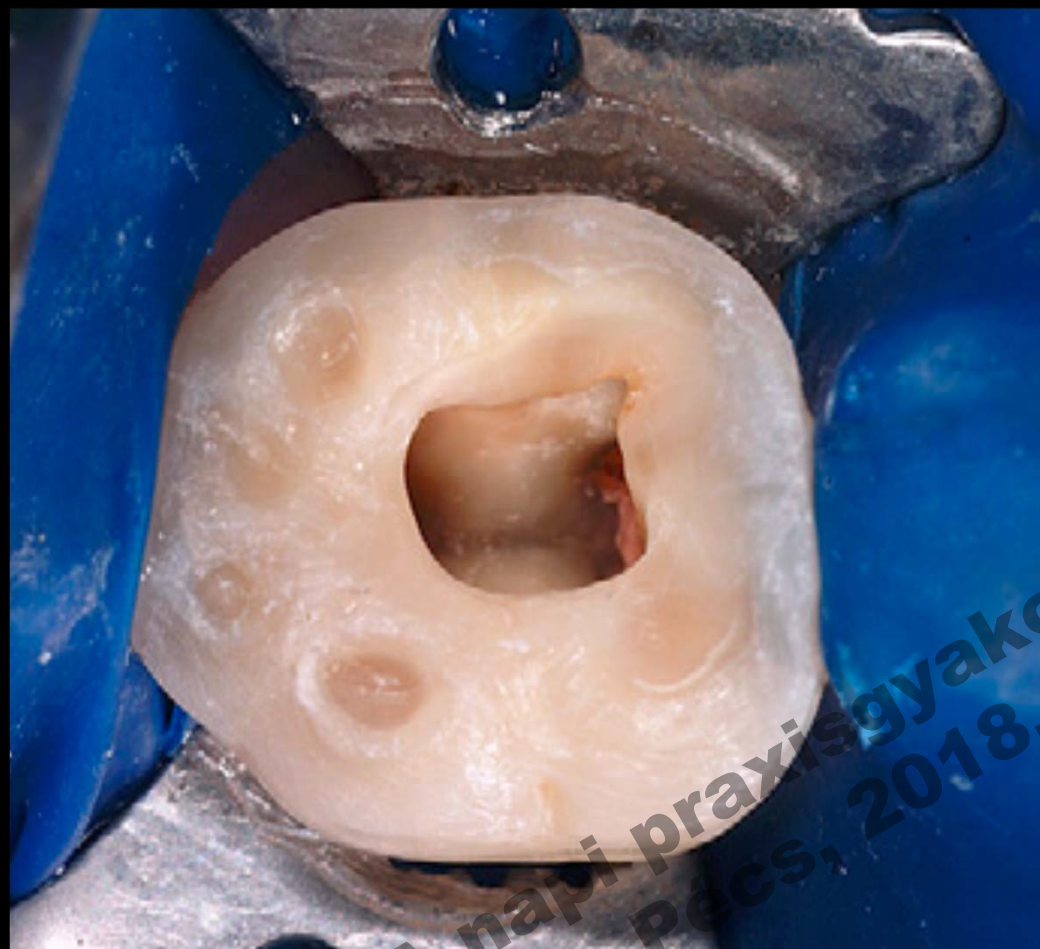




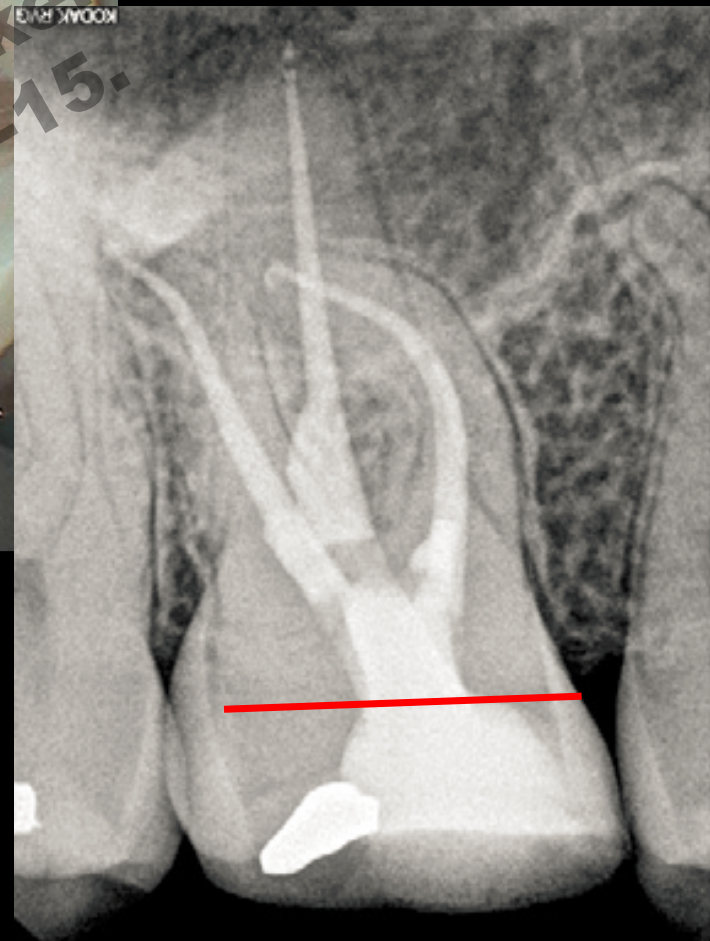


- Clark D, Khademi JA. Case studies in modern molar endodontic access and directed dentin conservation. Dent Clin N Am 2010;54:275-89.



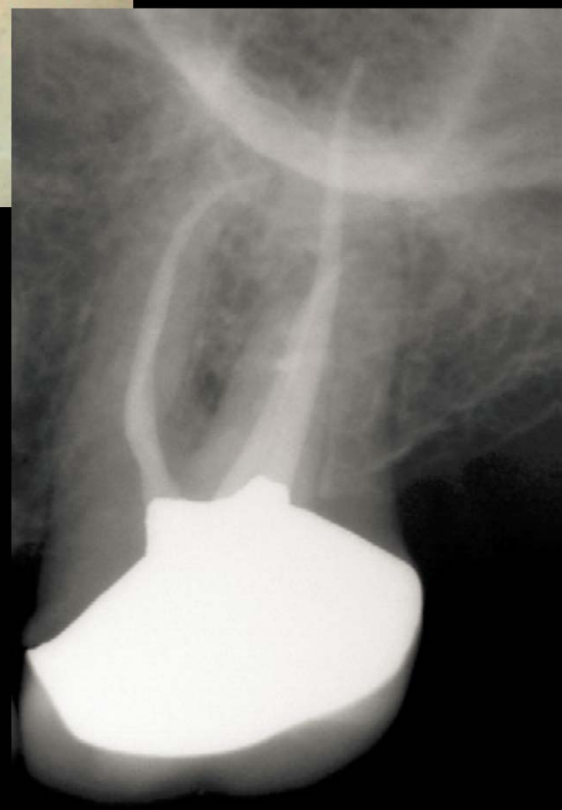


- Clark D, Khademi JA. Case studies in modern molar endodontic access and directed dentin conservation. Dent Clin N Am 2010;54: 275-89.



Clark D, Khademi JA. Case studies in modern molar endodontic access and directed dentin conservation. Dent Clin N Am 2010;54:275-89.





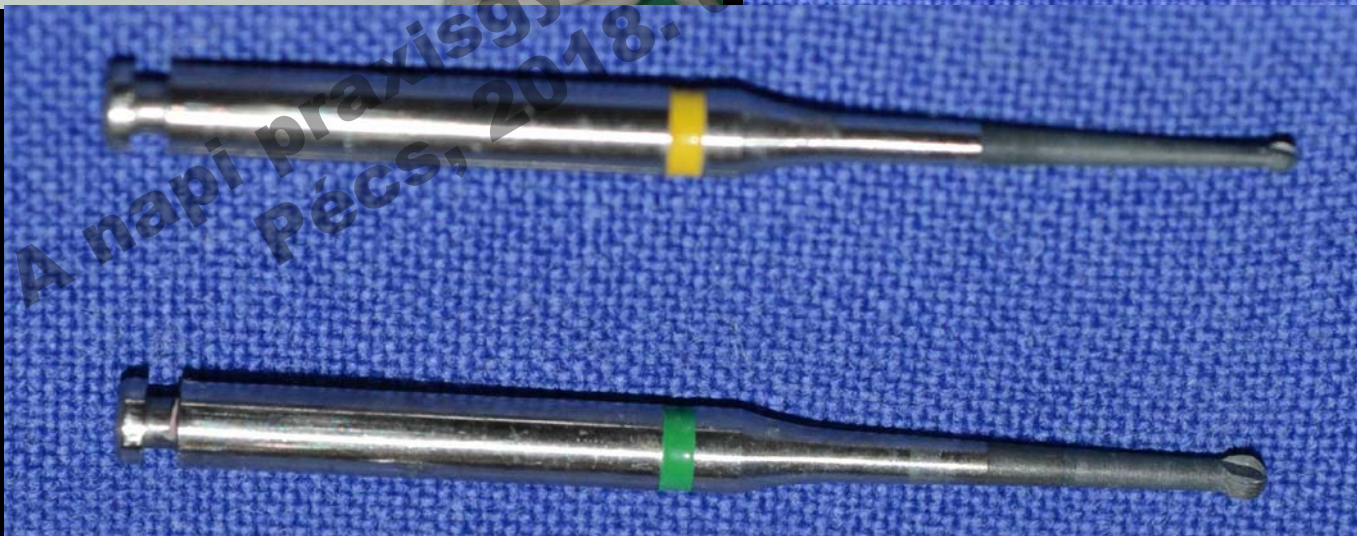
Clark D, Khademi JA. Case studies in modern molar endodontic access and directed dentin conservation. Dent Clin N Am 2010;54:275-89.





A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.







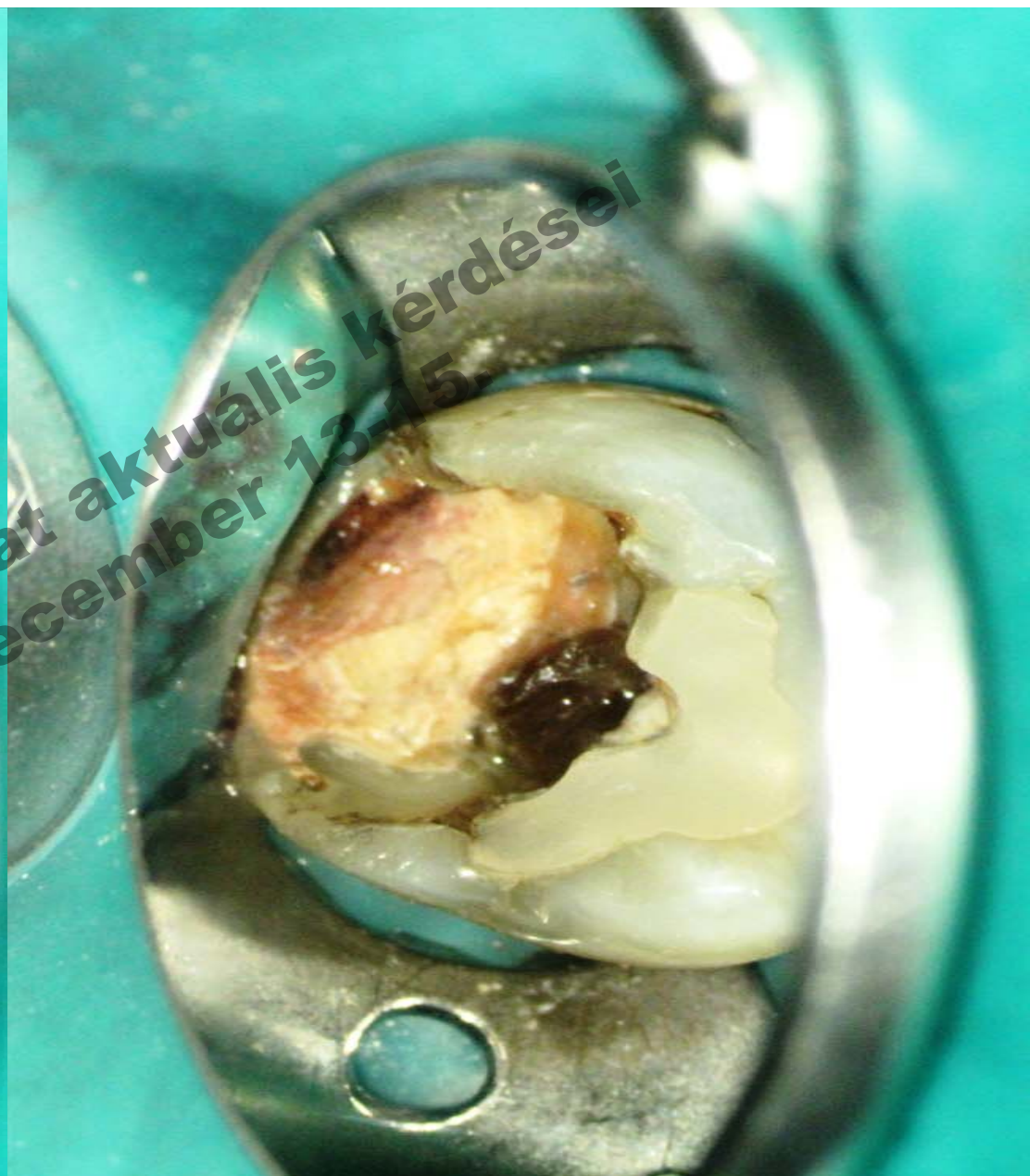


# Izolálás kiegészítő felépítés nélkül



A napi praxisgyakorlat aktuális kérdés  
Pécs, 2018. december 13-15.





A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.





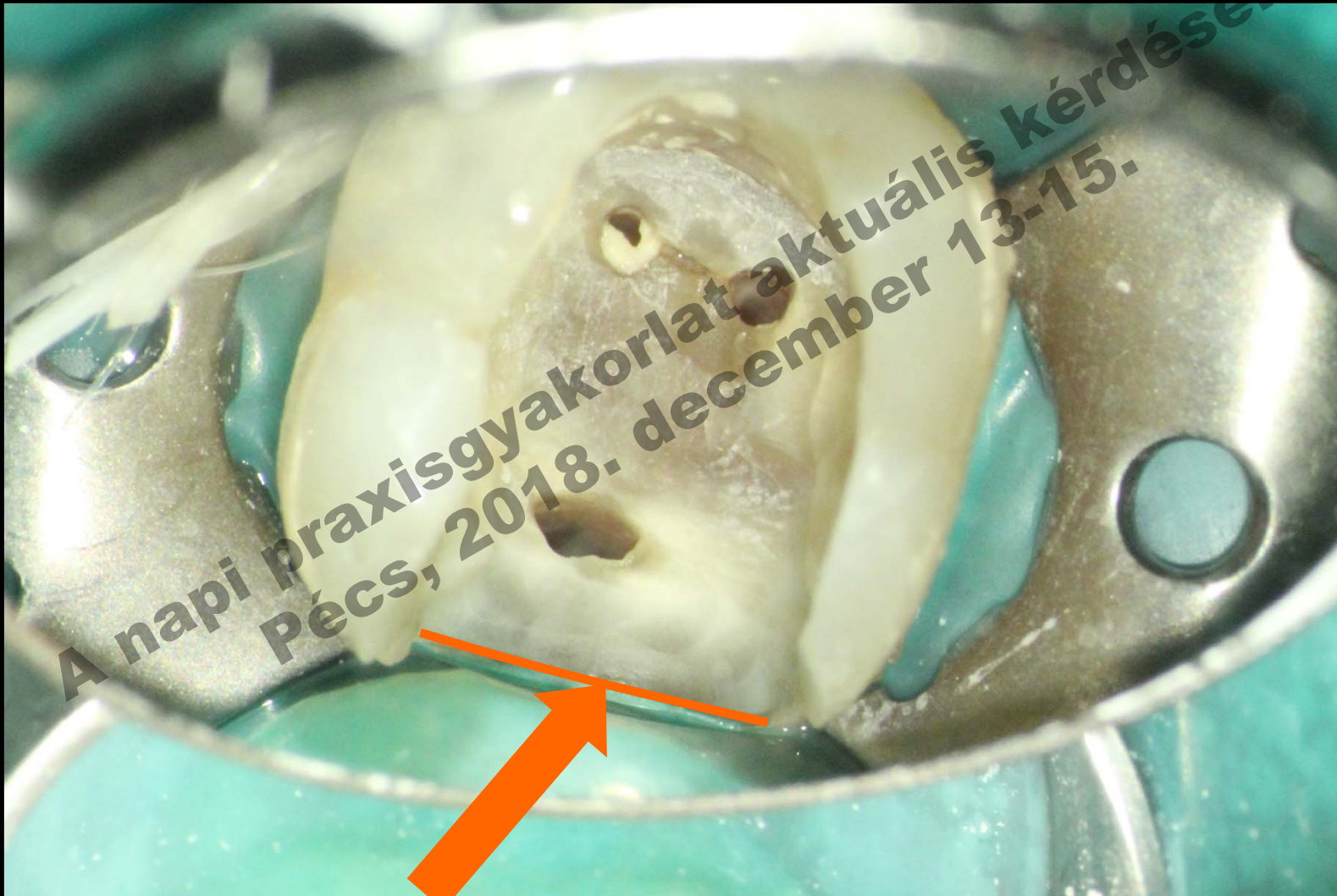
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

**A napi praxisgyakorlat aktuális kérdései**  
**Pécs, 2018. december 13-15.**





# Marginális szivárgás



A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.





A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



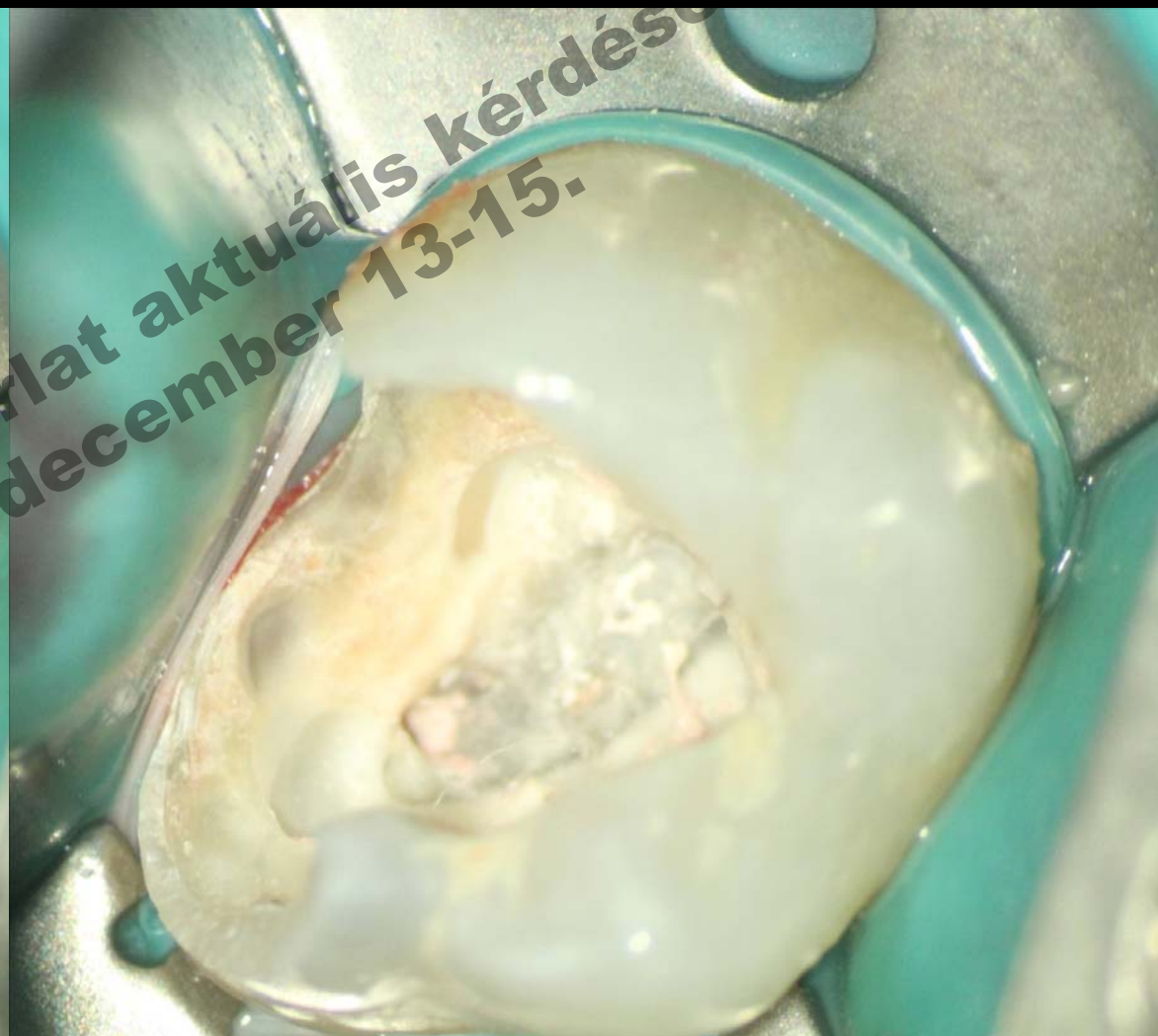


A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



# Preendodontiai felépítés



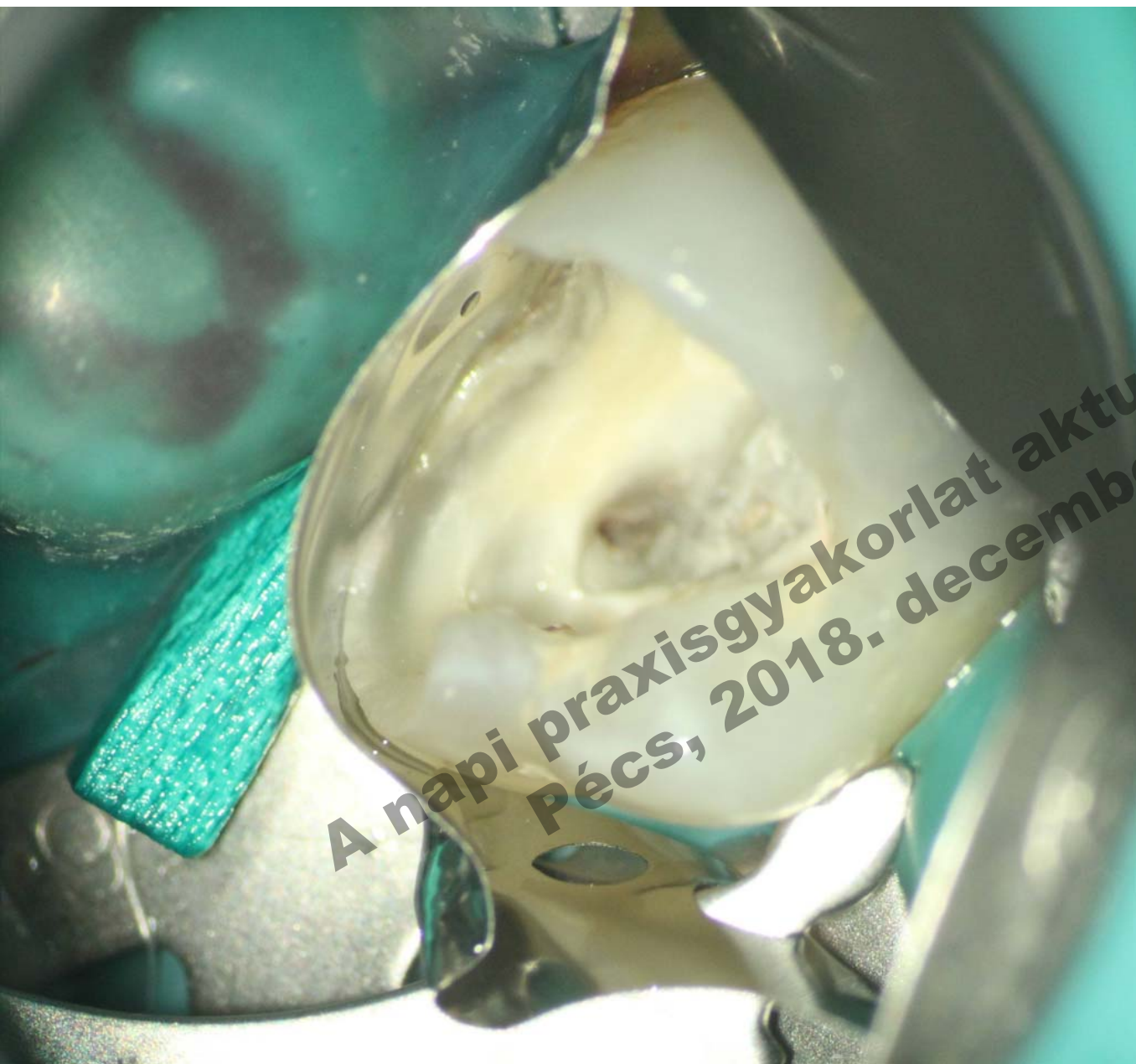


A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.

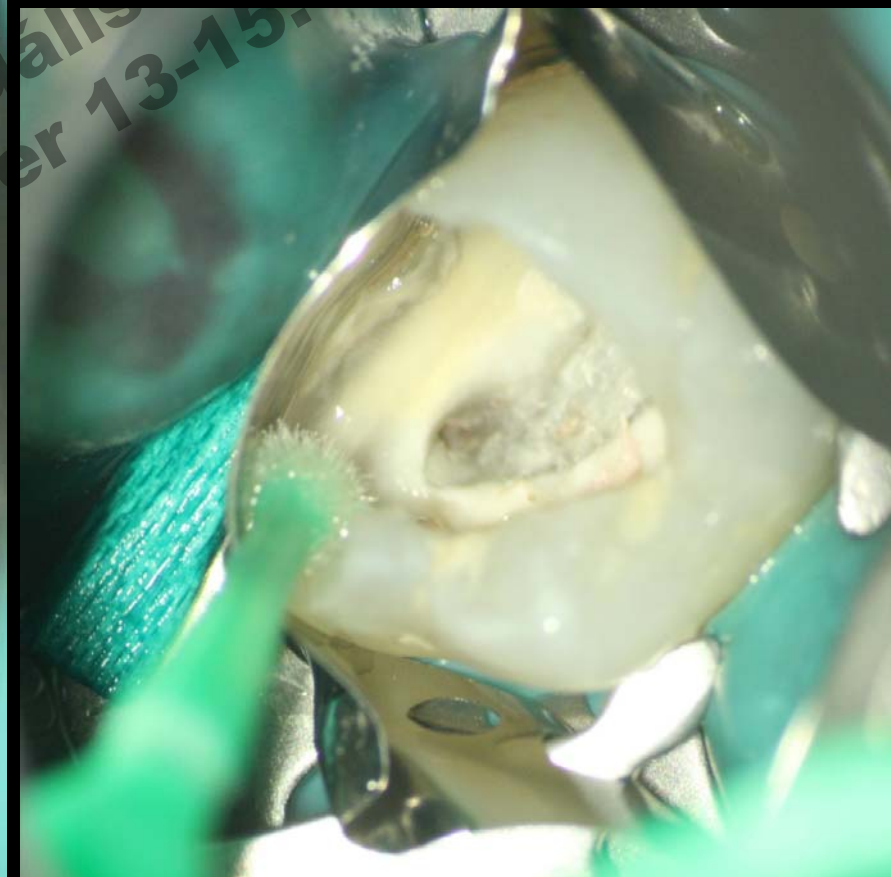


A close-up photograph of a dental procedure being performed on a tooth model. The model is mounted in a green dental chair. A dental handpiece is visible, and a small, light-colored, irregularly shaped object, possibly a wax or composite build-up, is being worked on the tooth. The background is blurred, showing other parts of the dental chair and equipment.

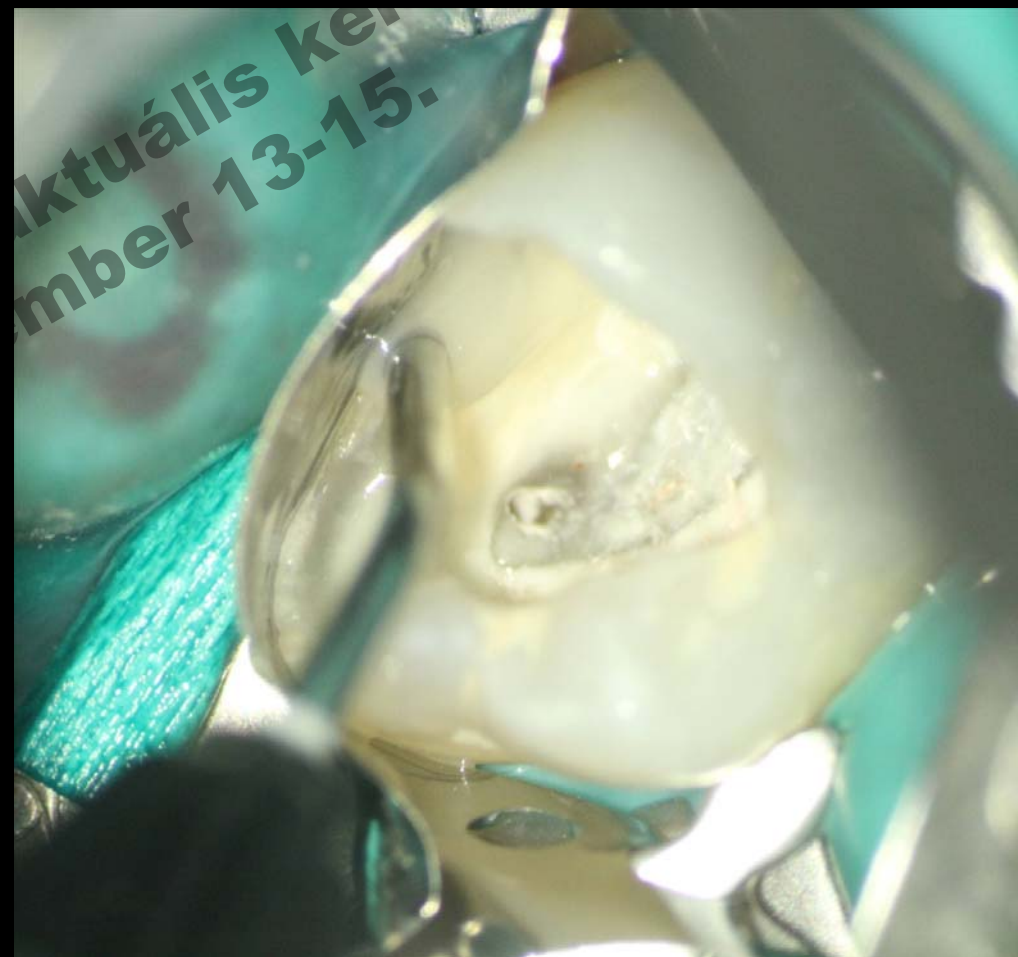
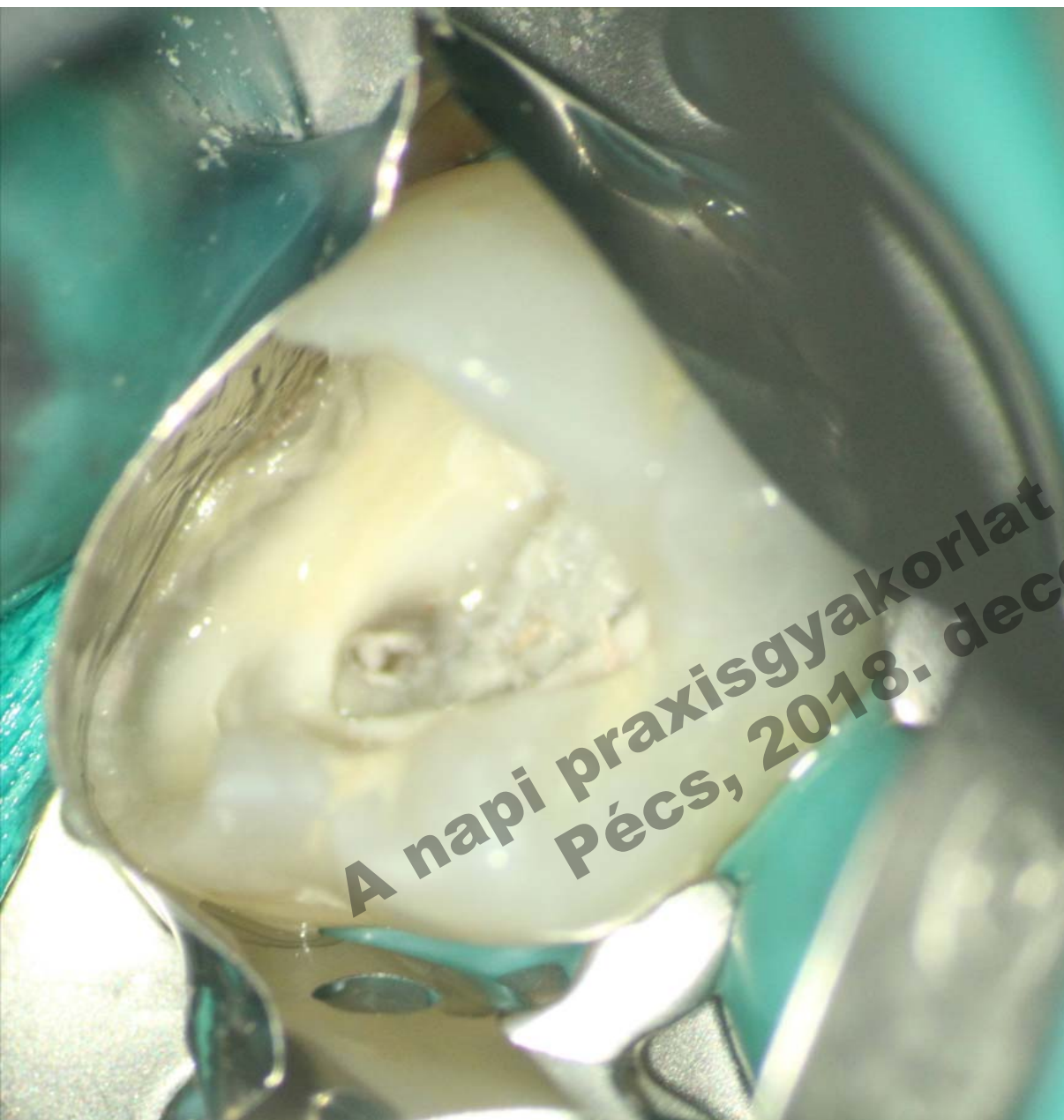
**A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.**



A napi praxisgyakorlat aktuális  
Pécs, 2018. december 13-15.





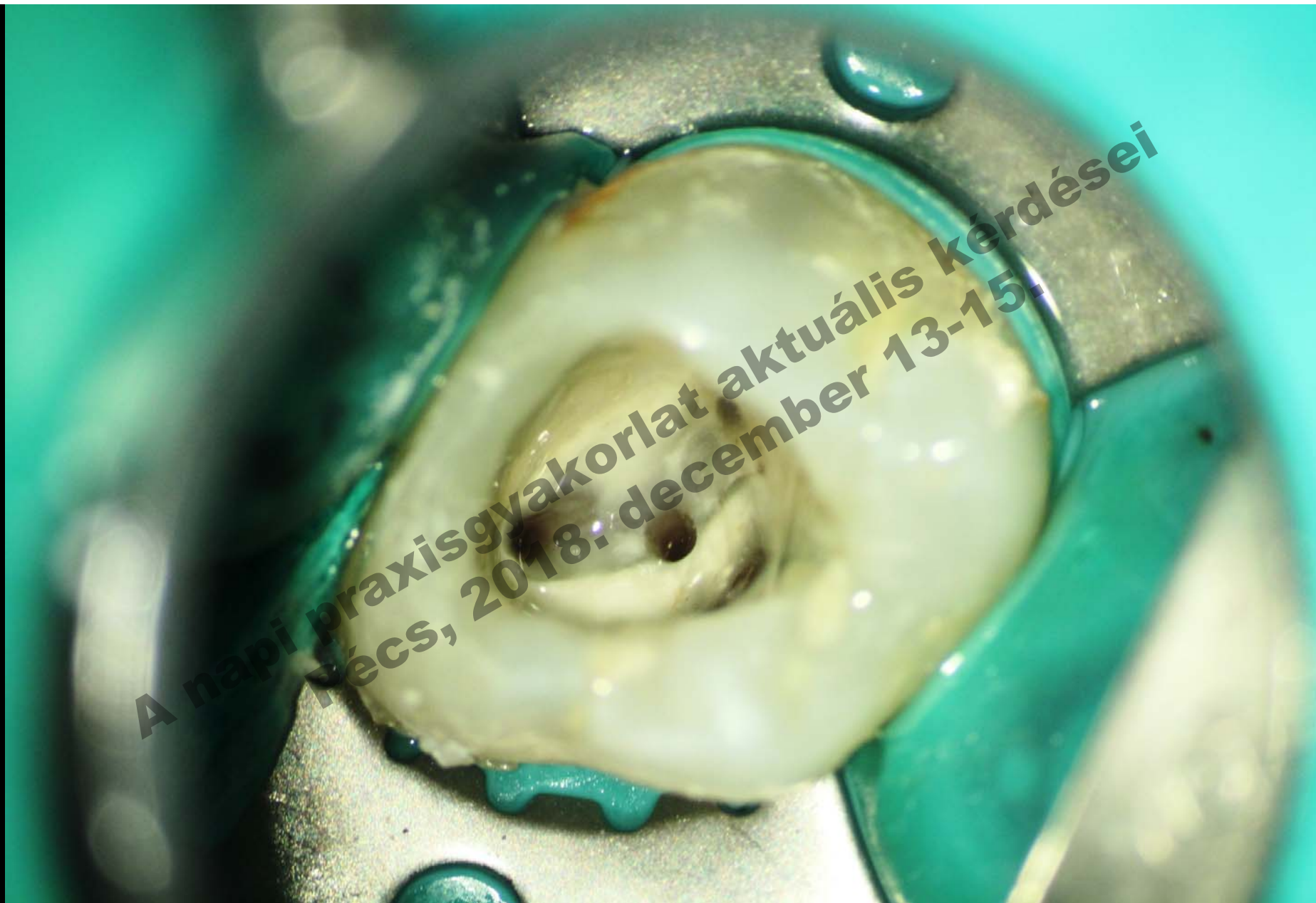


A close-up photograph of a dental crown mounted on a dental model. The crown is a light, translucent color with a central opening. It is surrounded by a teal-colored material, likely part of the model or a wax block. The background is dark and out of focus.

**A napi praxisgyakorlat aktuális kérdései**  
**Pécs, 2018. december 13-15.**



A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



**A napi praxisgyakorlat aktuális kérdései**  
**Pécs, 2018. december 13-15.**





# Koronális restauráció megtartása

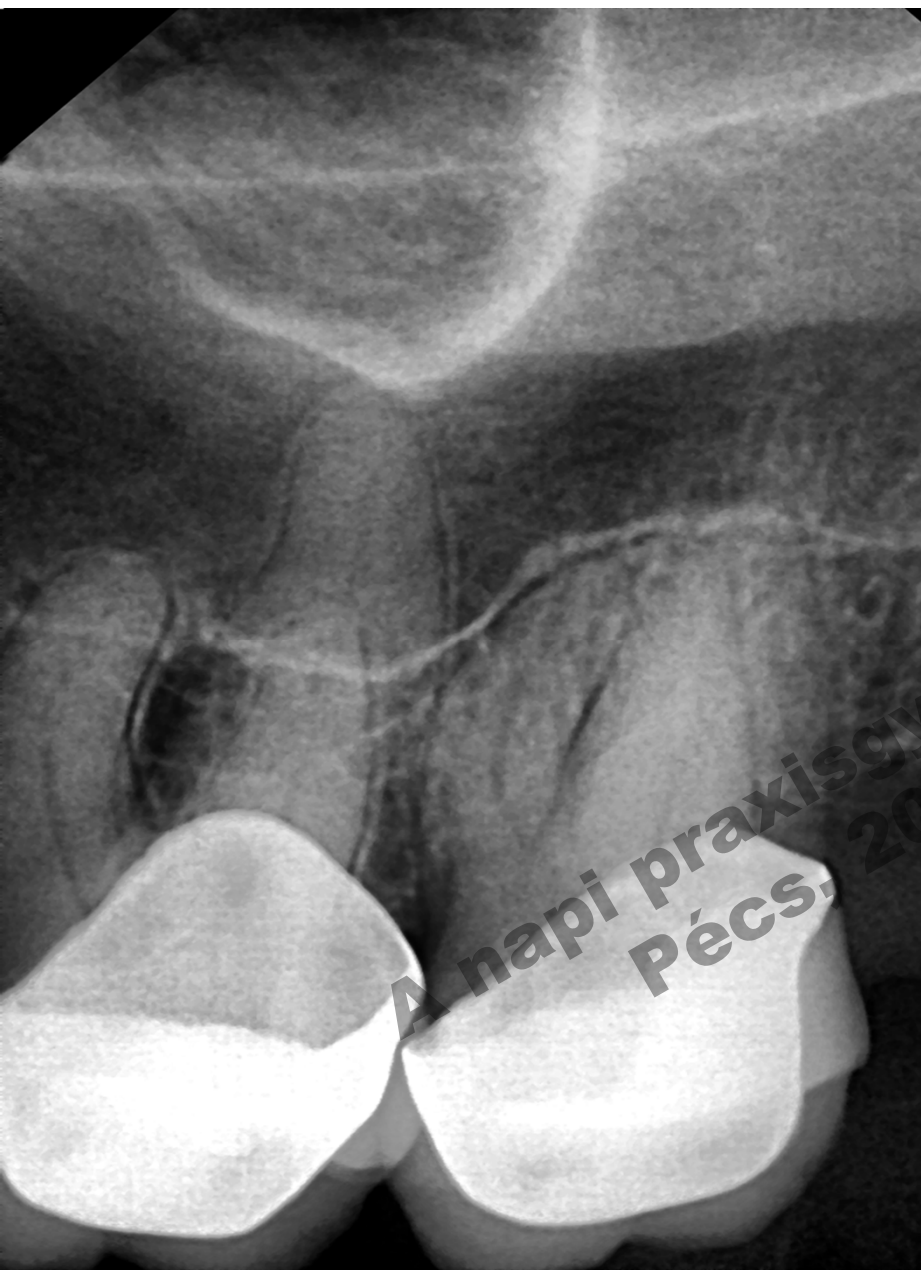






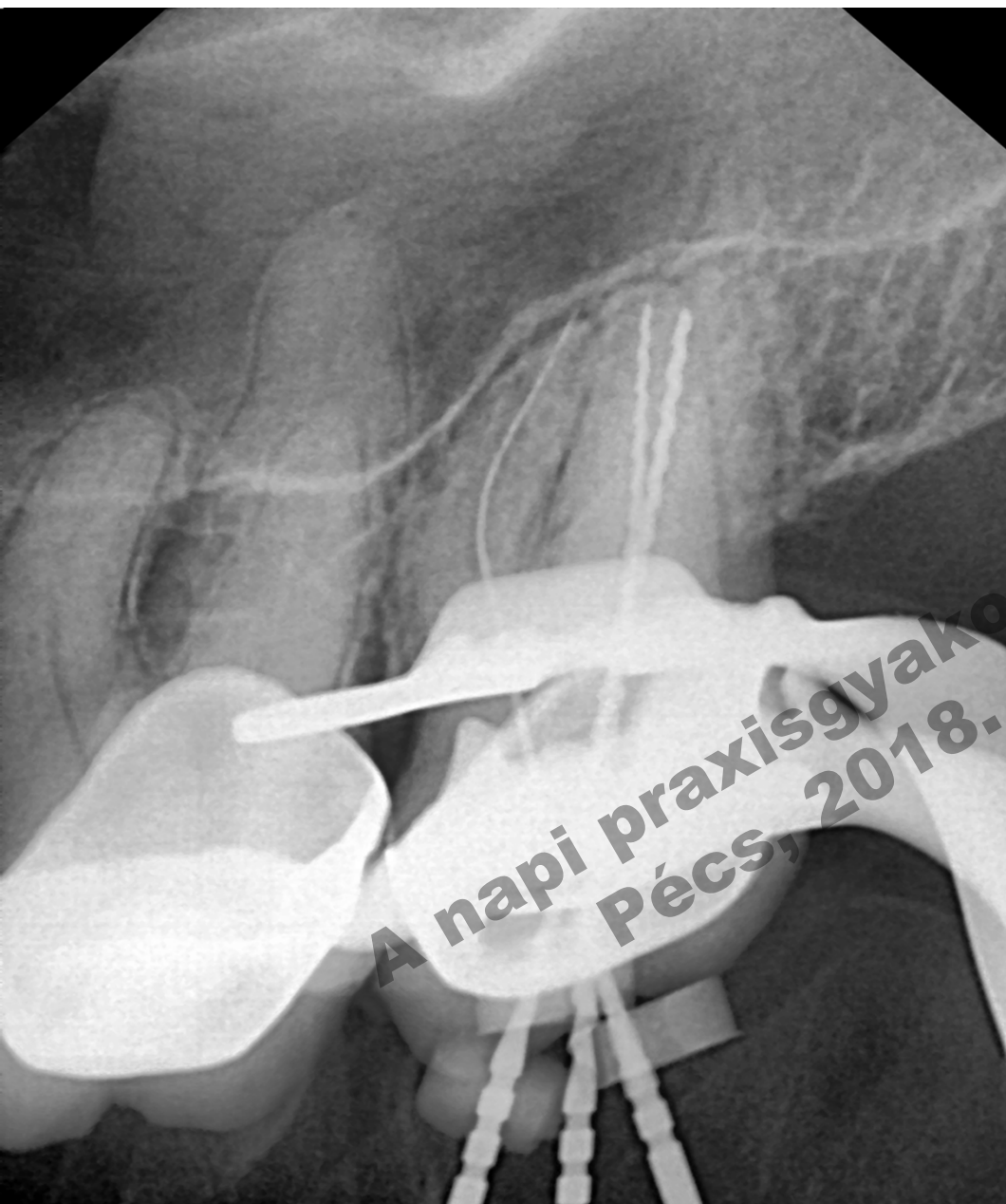


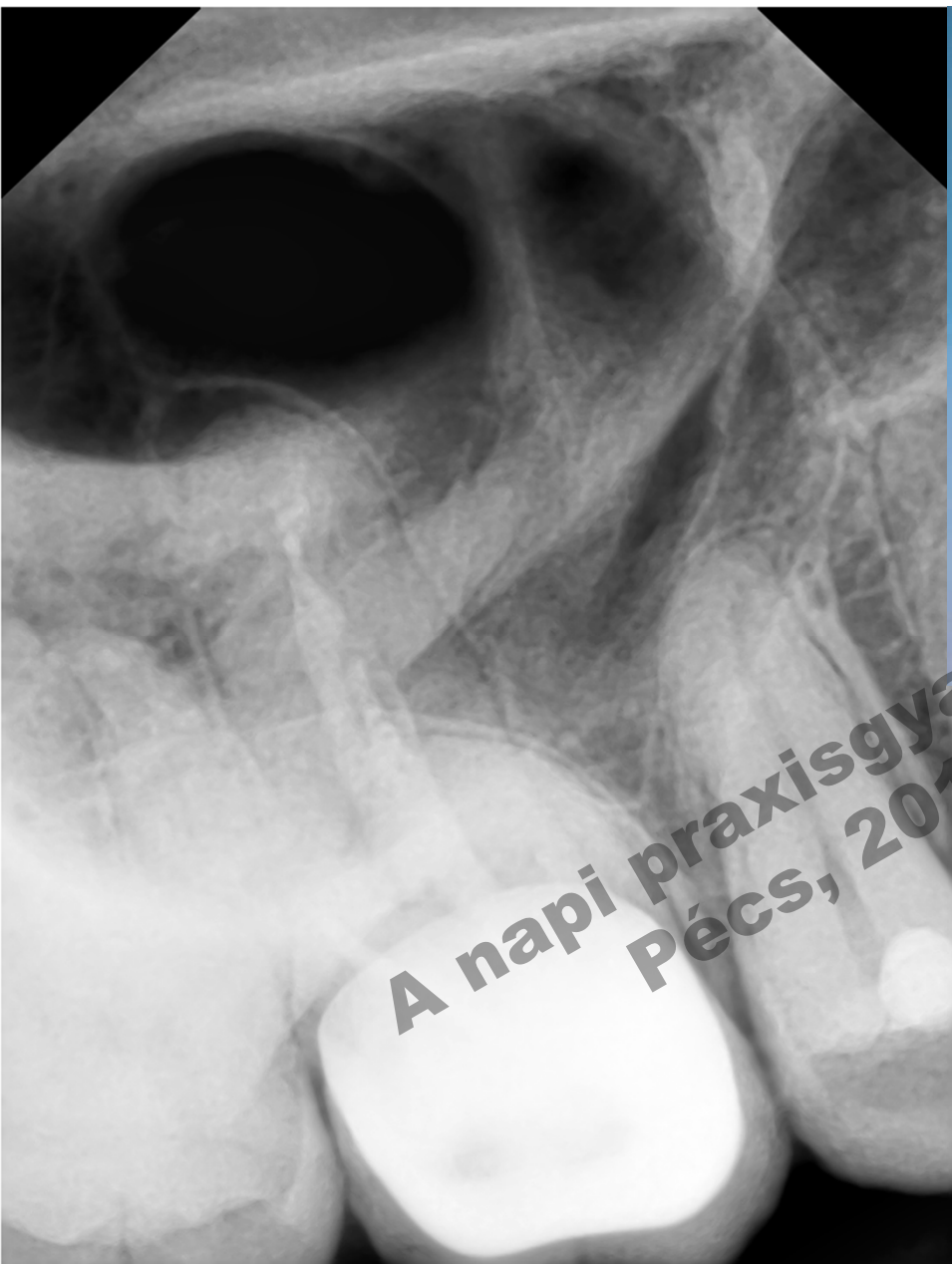




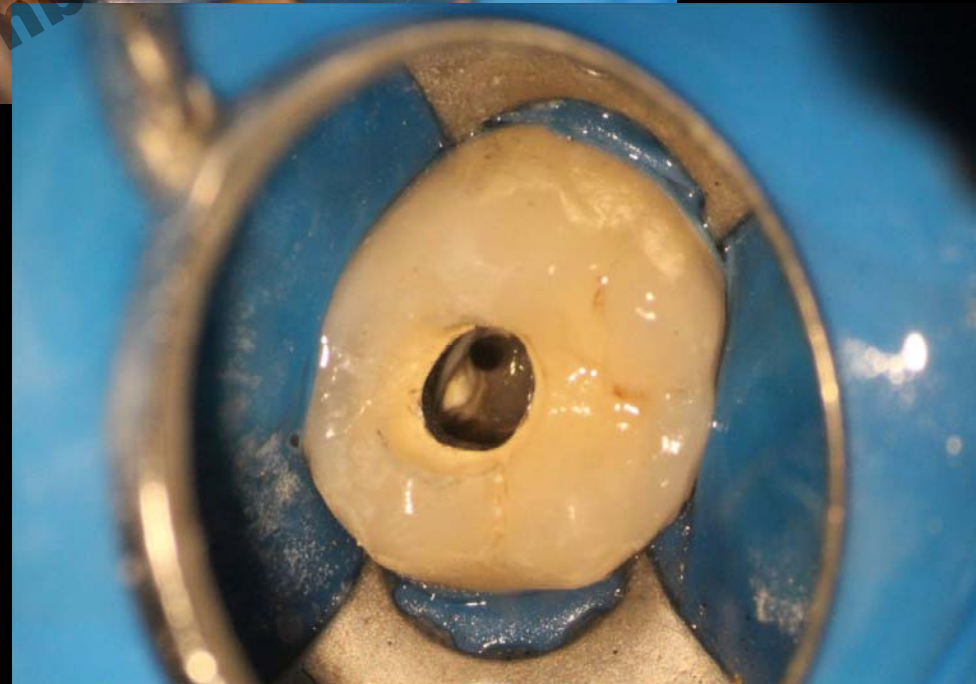
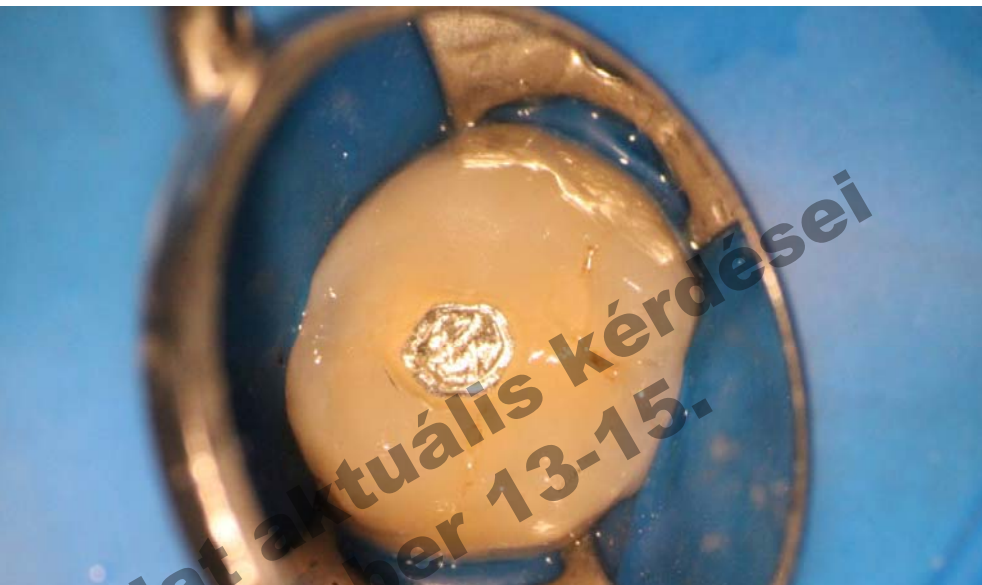
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.



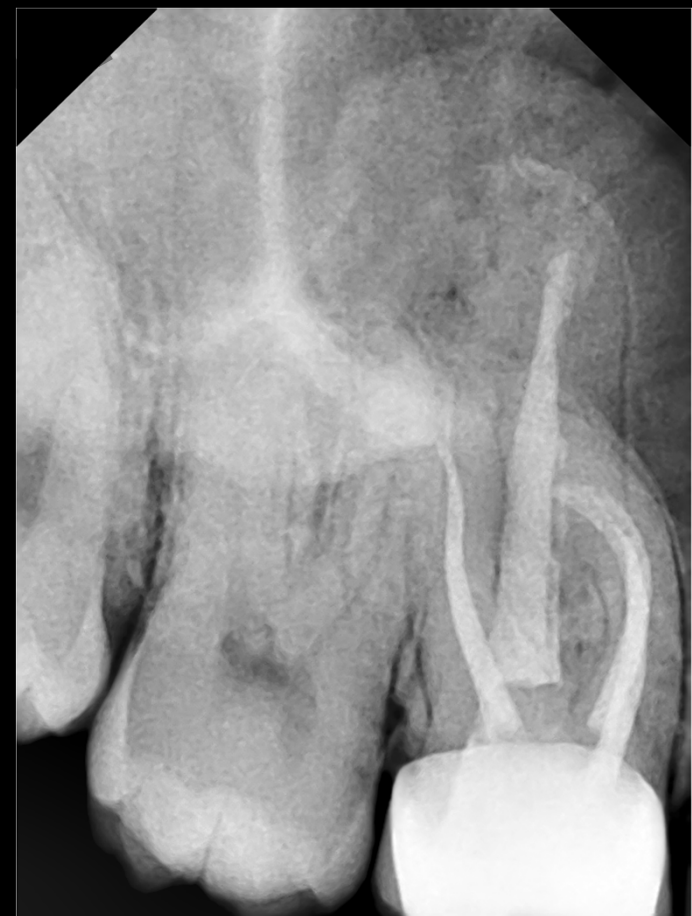
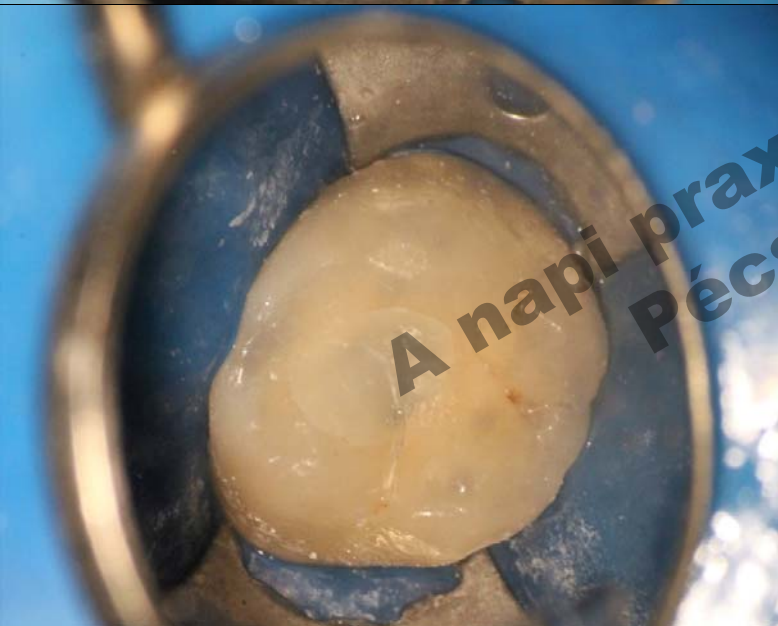
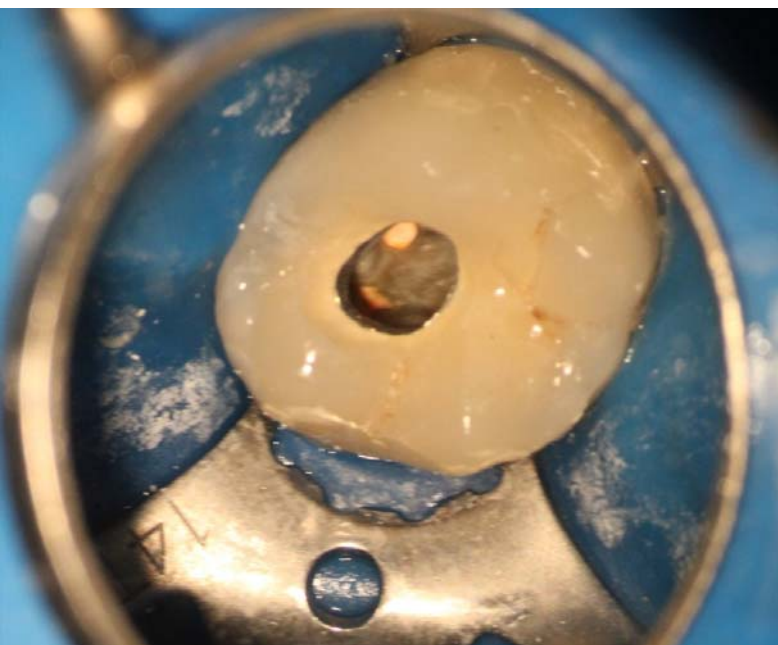




A napi praxisgyakorlat aktuális kérdései  
Pécs, 2014. december 13-15.



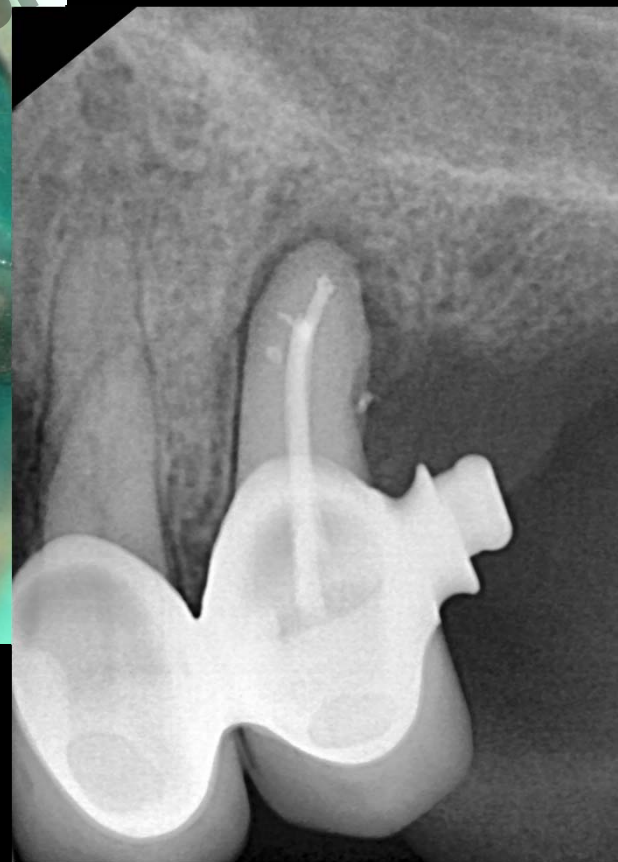
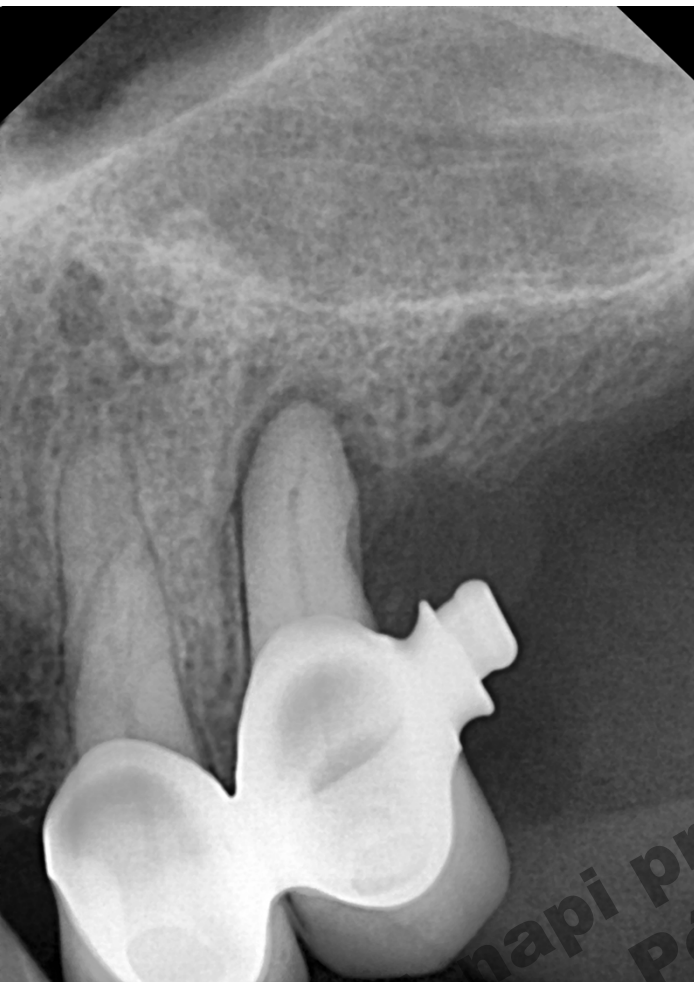




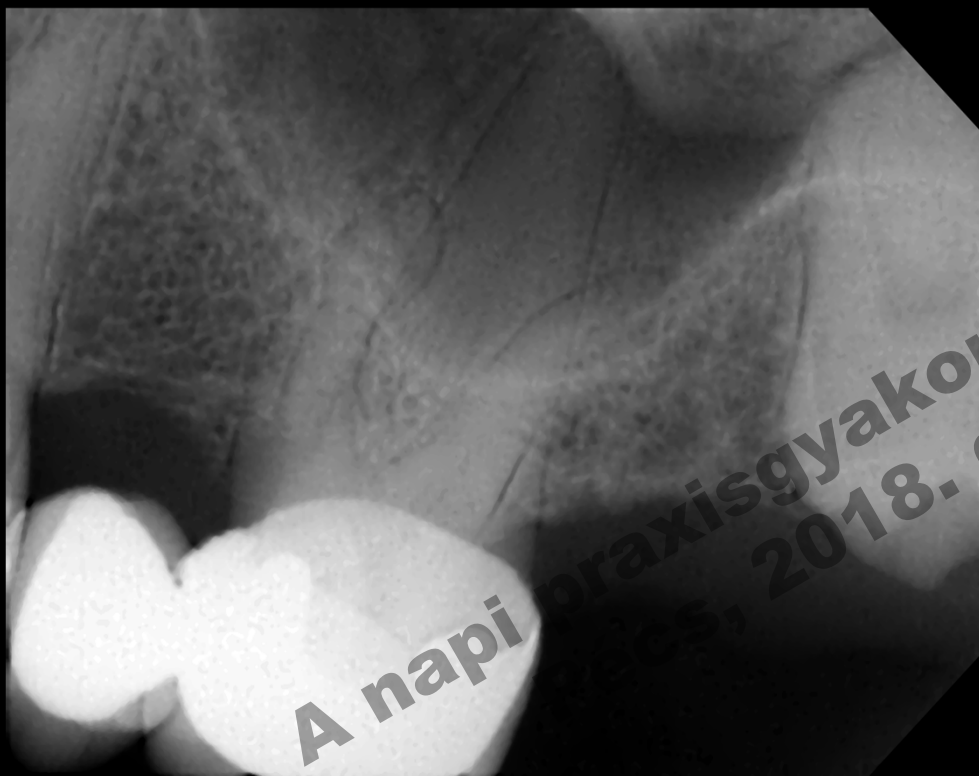
# Hídorgony korona izolálása



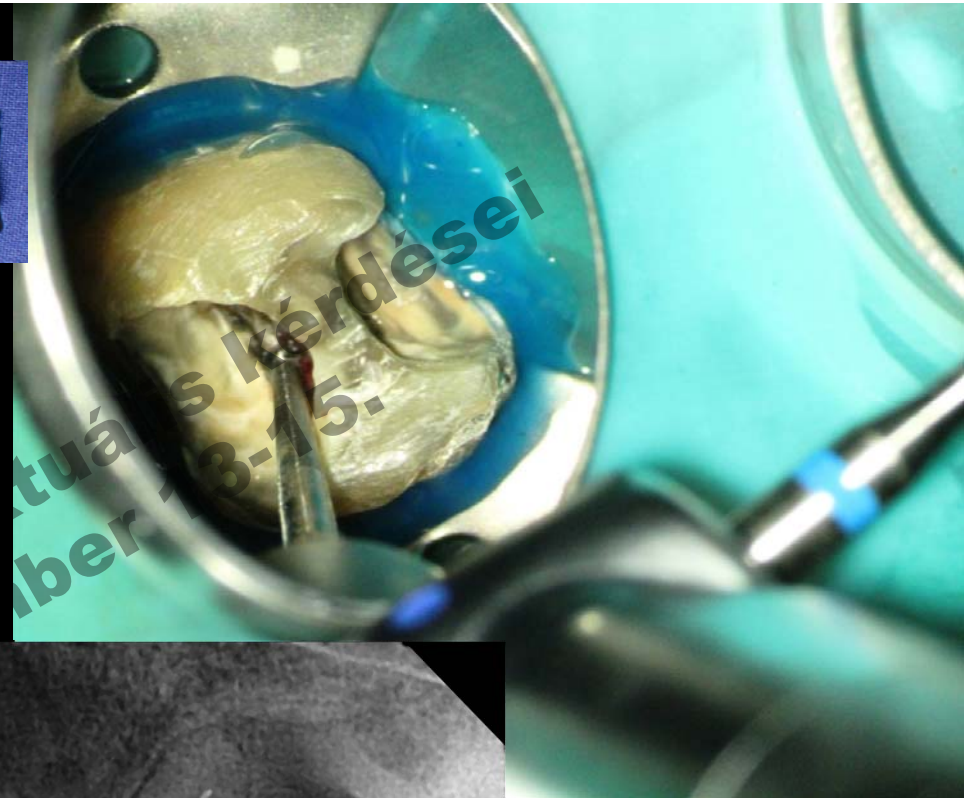




# Előkészített csont izolálása







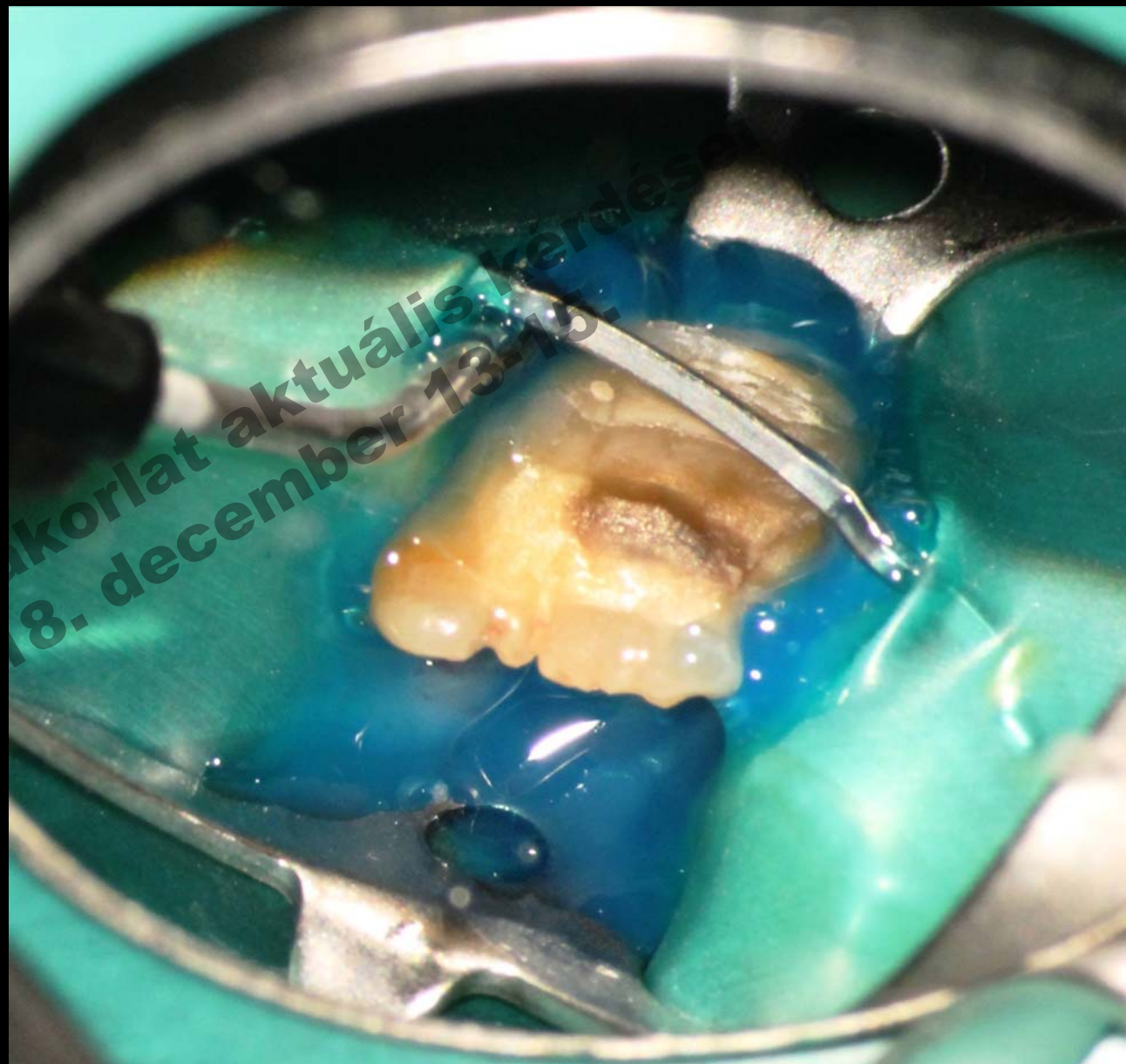
# Fogszabályozó készülék





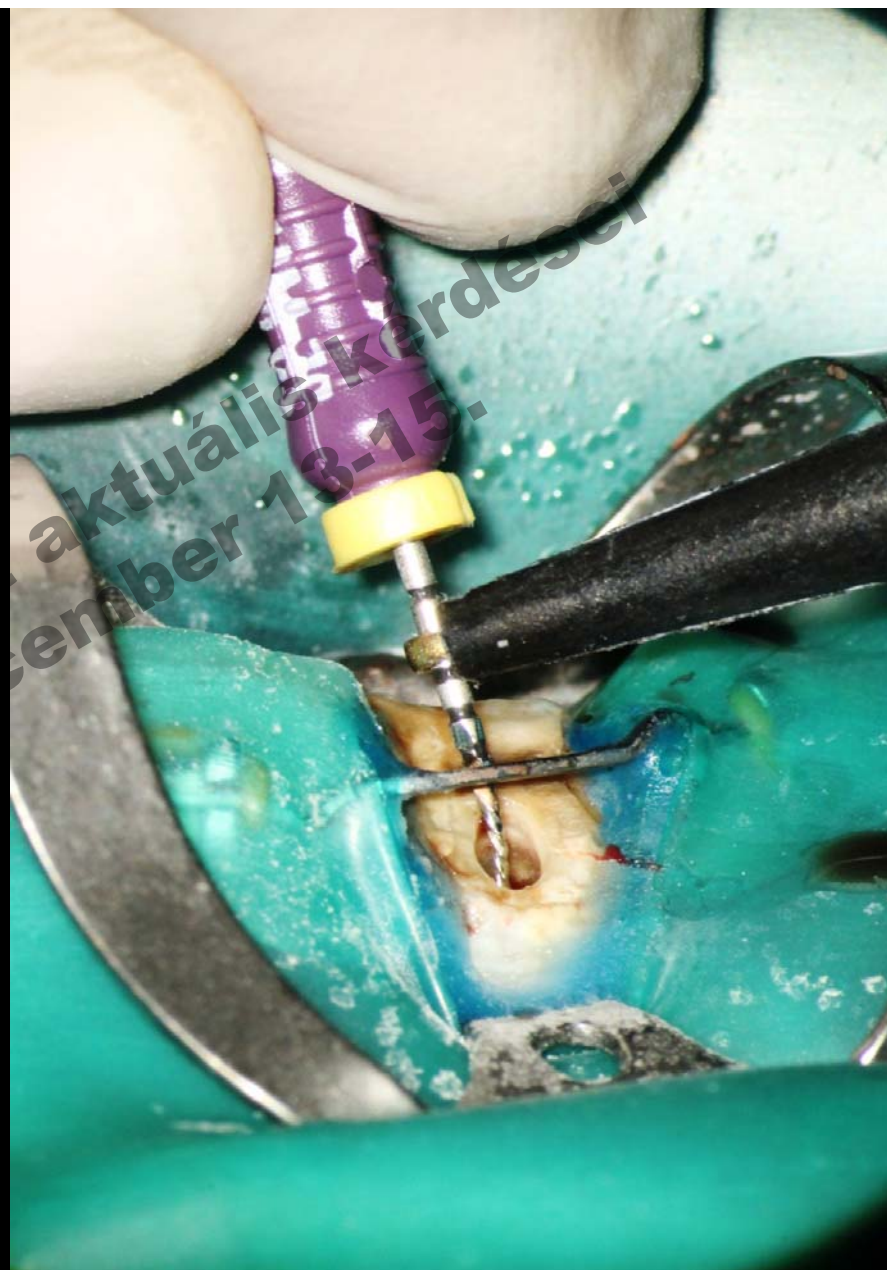
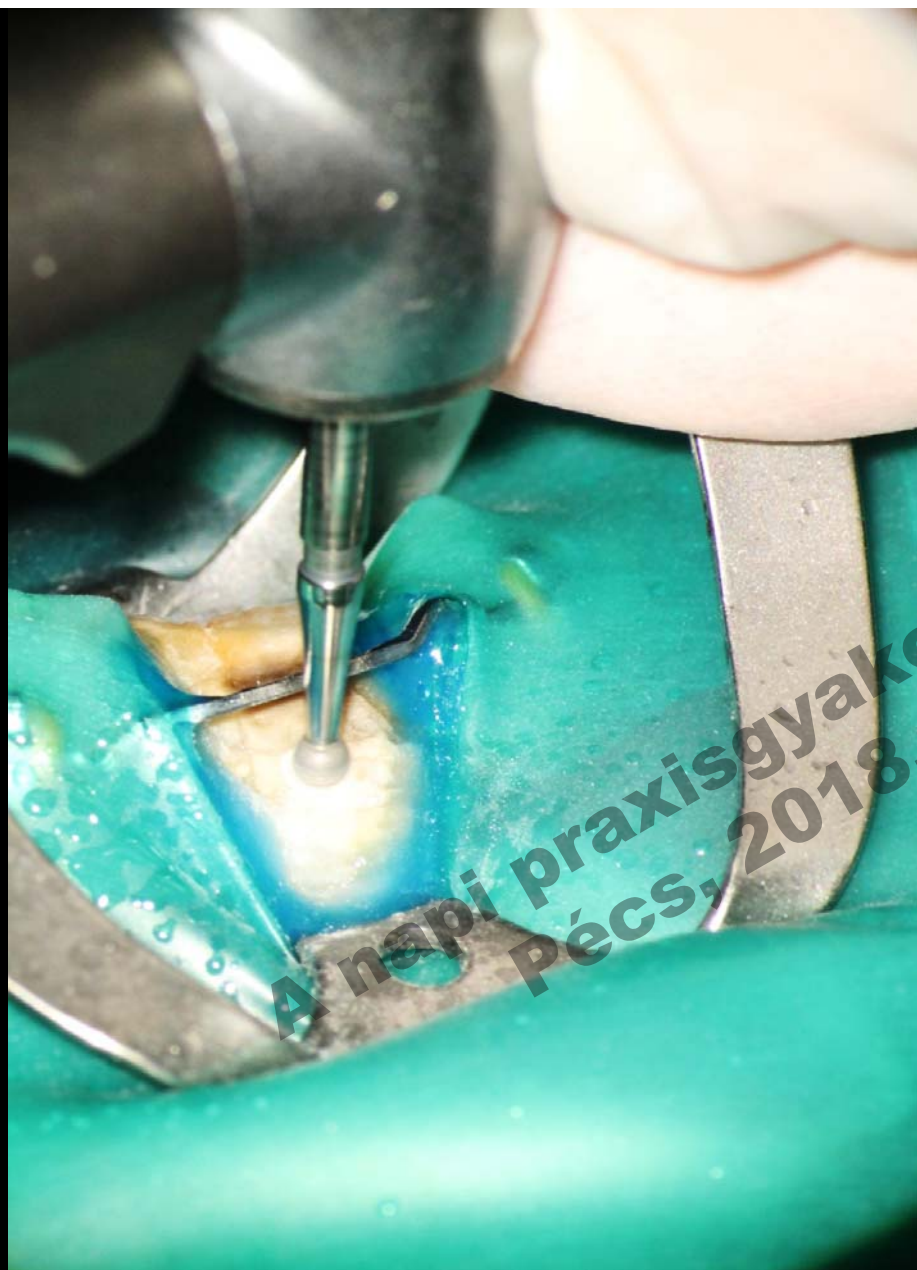


A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.



A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.







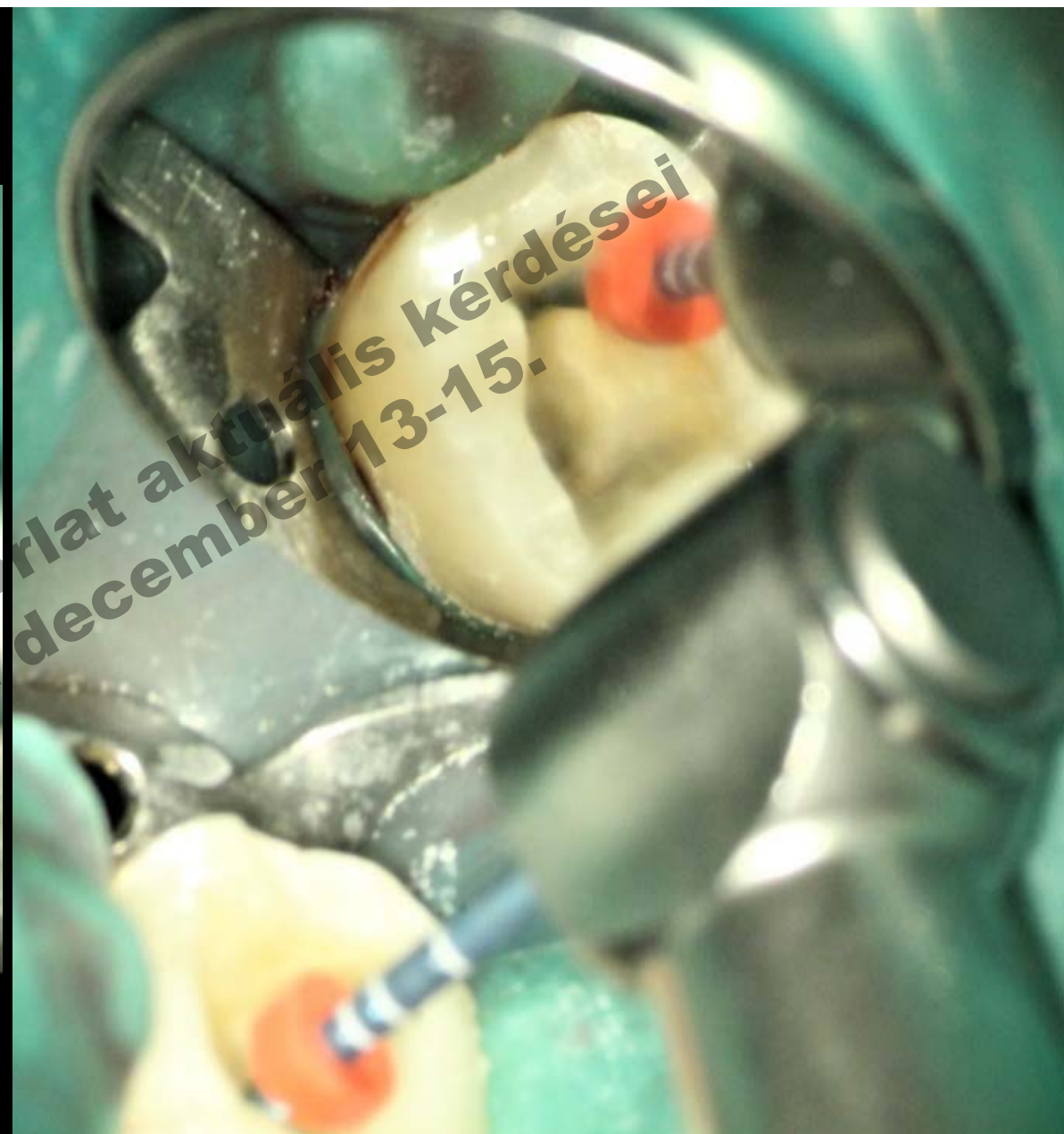


# Kalcifikáció a pulpakamra alapon









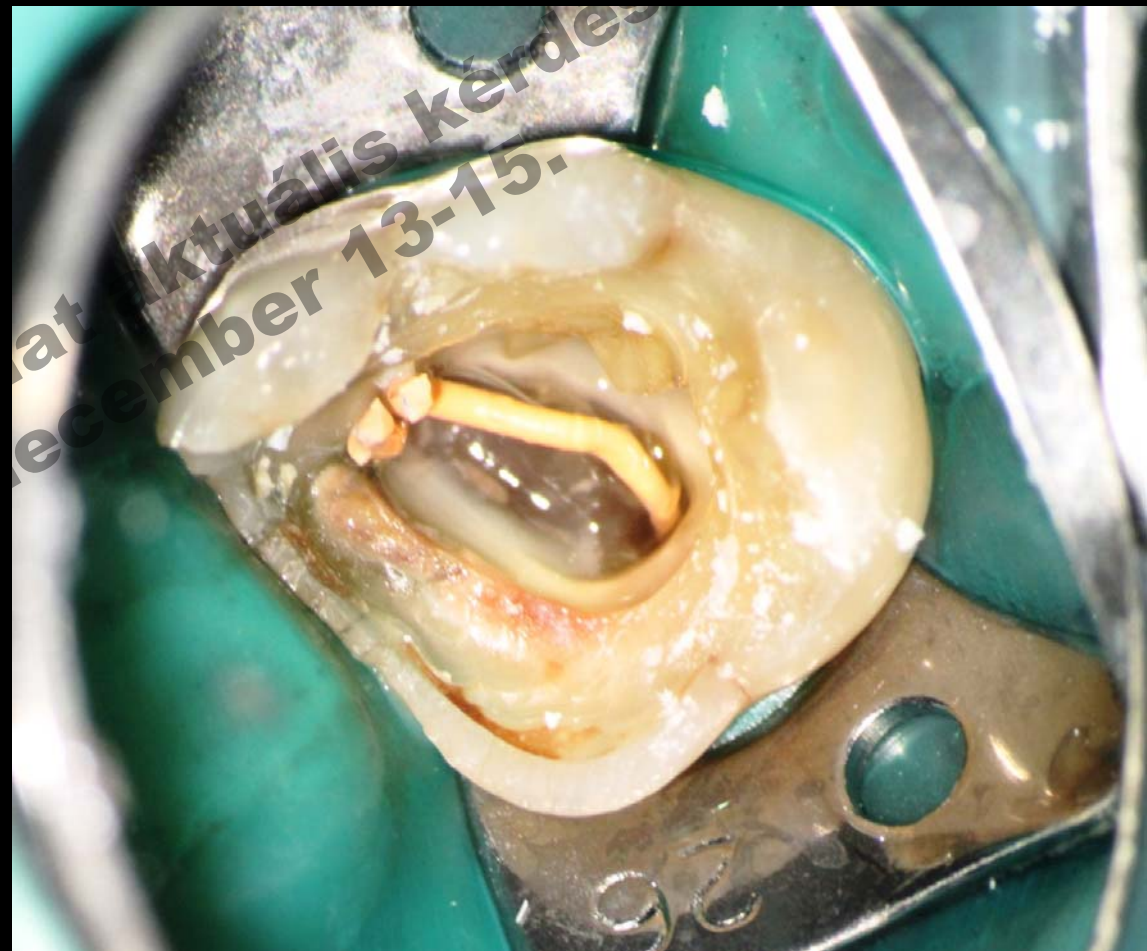
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.





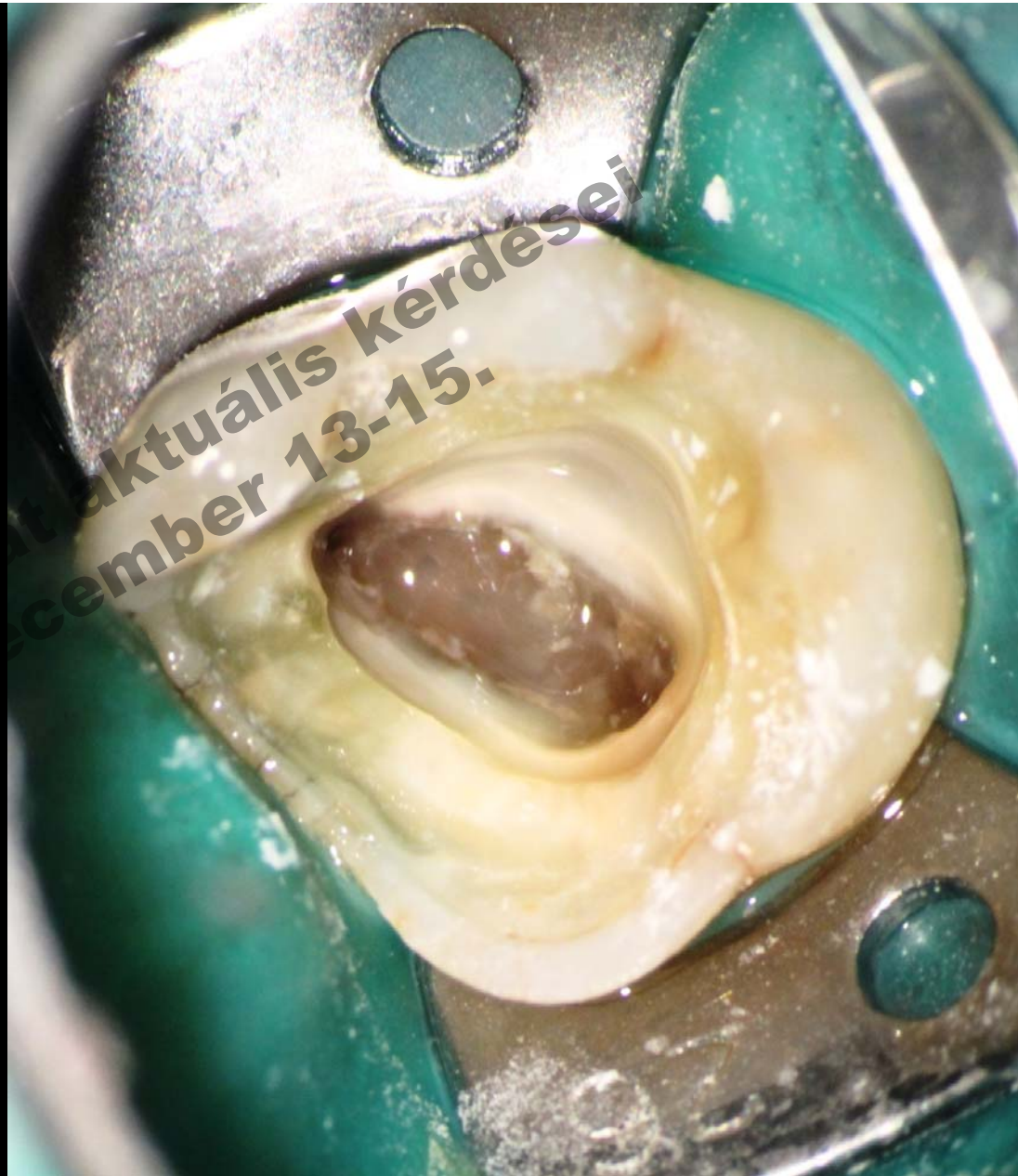
A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.

„Nehezen lokalizálható” csatornák

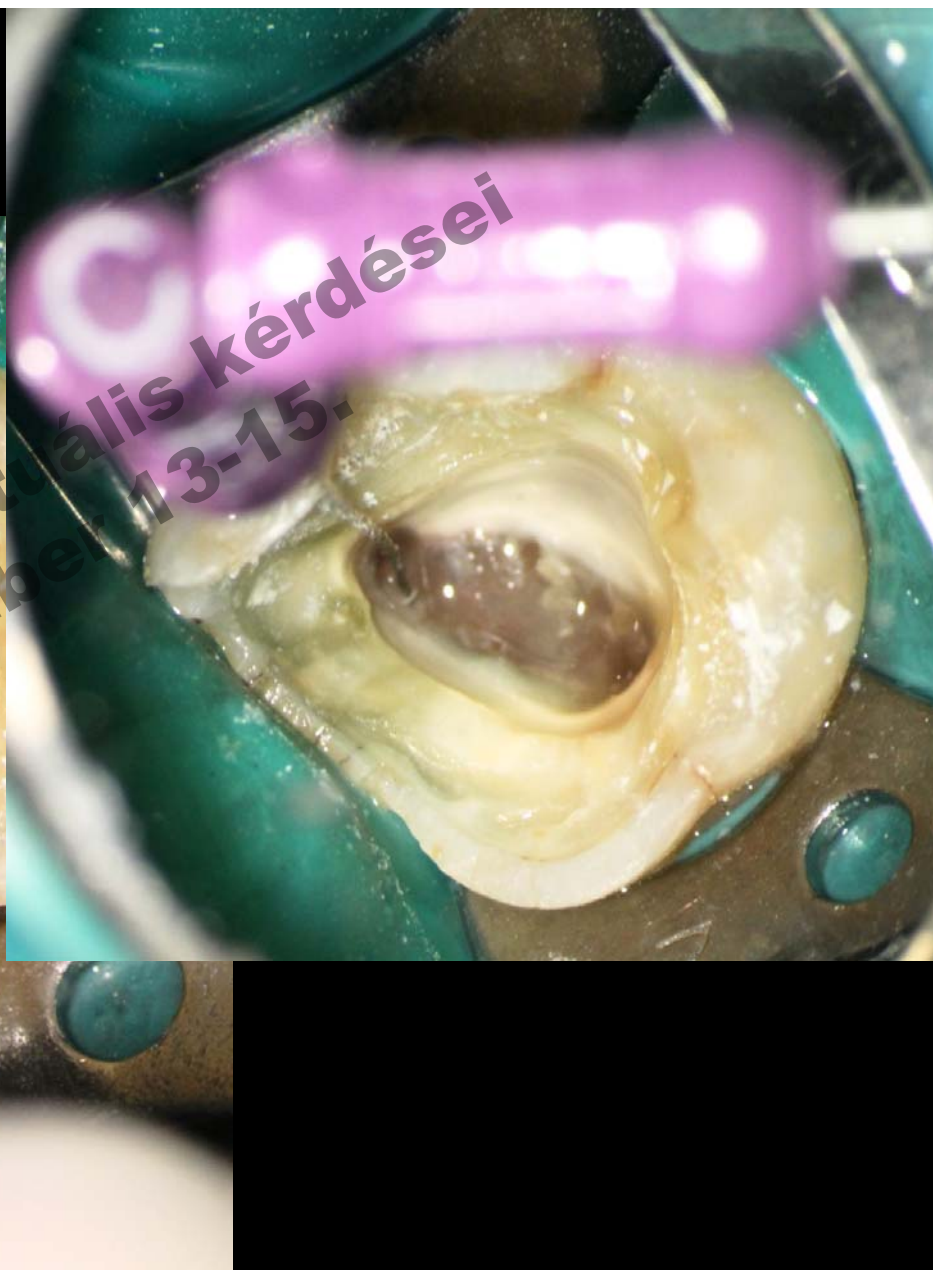
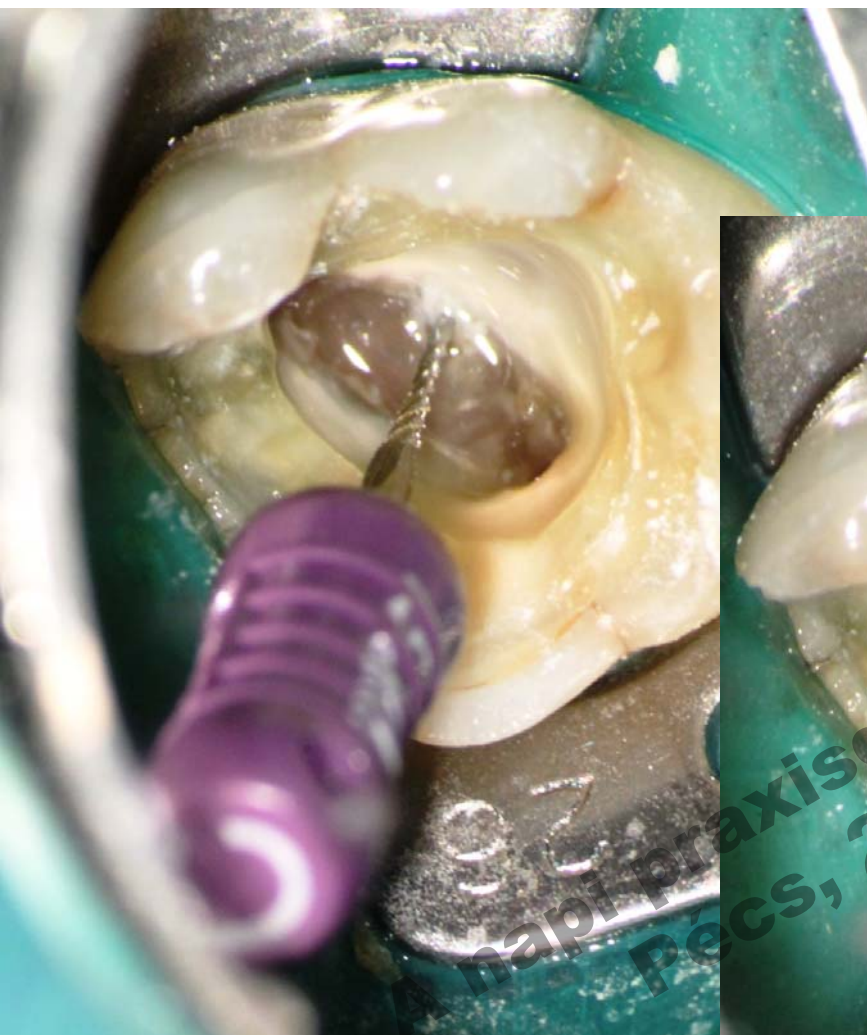


A napi praxisgyakorlat aktuális kérdése  
Pécs, 2018. december 13-15.









napi praxisgyakorlat aktív kérdés  
Pécs, 2018. december 13-15.











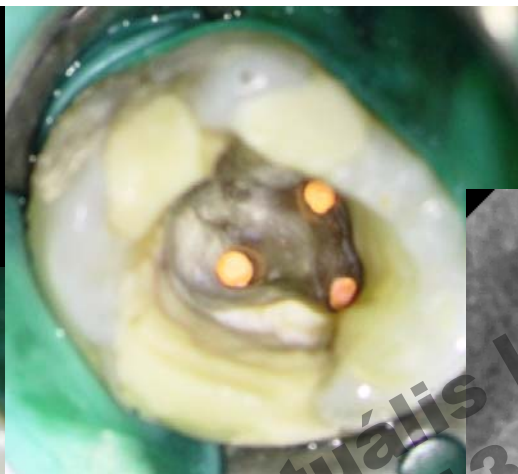
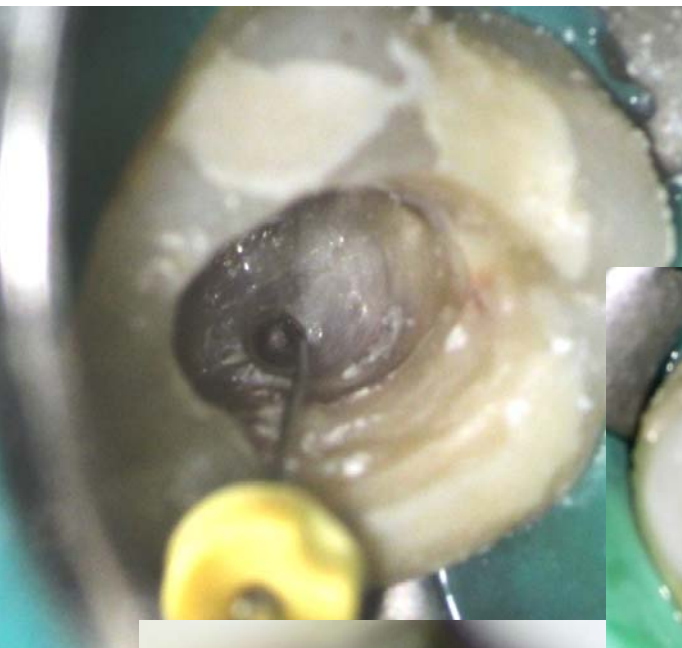




A napi praxisgyakorlat  
Pécs, 2018. december 15.







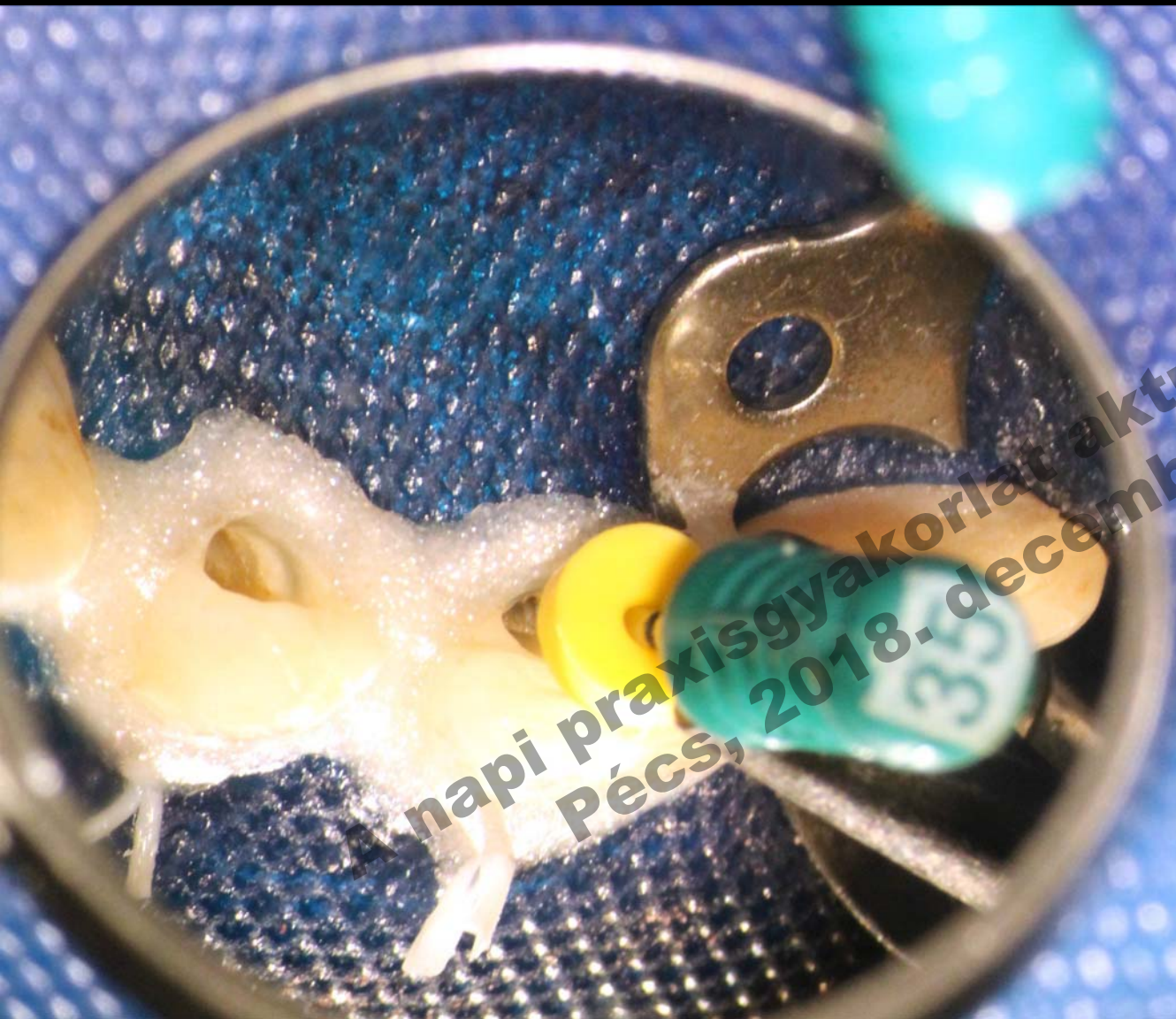
# Több fog izolálása











**5. napi praxisgyakorlat aktuális kérdései**  
**Pécs, 2018. december 13-15.**

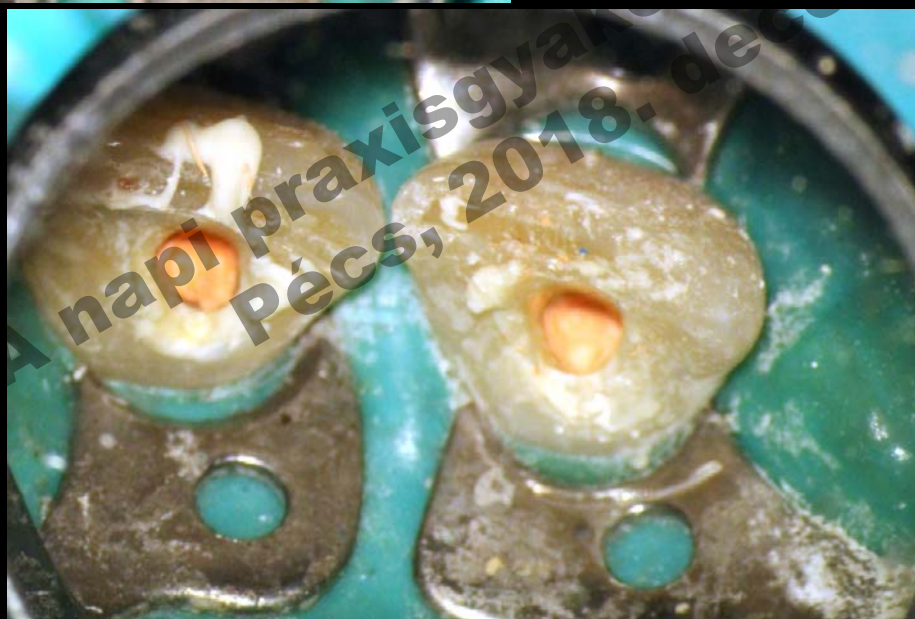
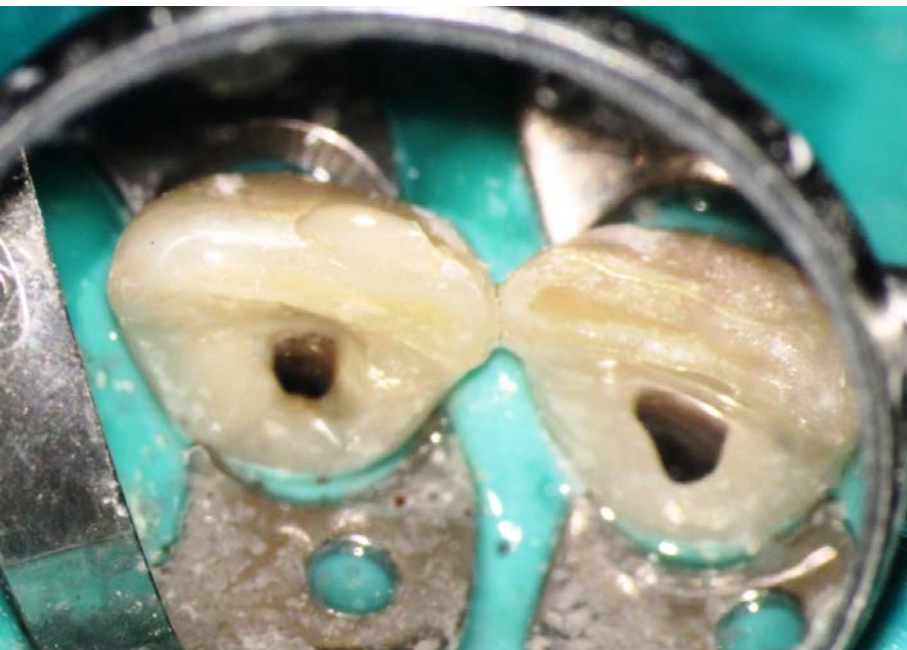




A napi praxisgyakorlat  
Pécs, 2013.



gyakorlat aktuális kérdései  
3. december 13-15.





# Nehéz kapocsrögzítés



# Összefoglalás

Kofferdam izolálás **kötelező**.

Sokan **mégsem** alkalmazzák.

Egyszerű **alaptechnika** (szárnyas).

Előfordul izolálási nehézség.

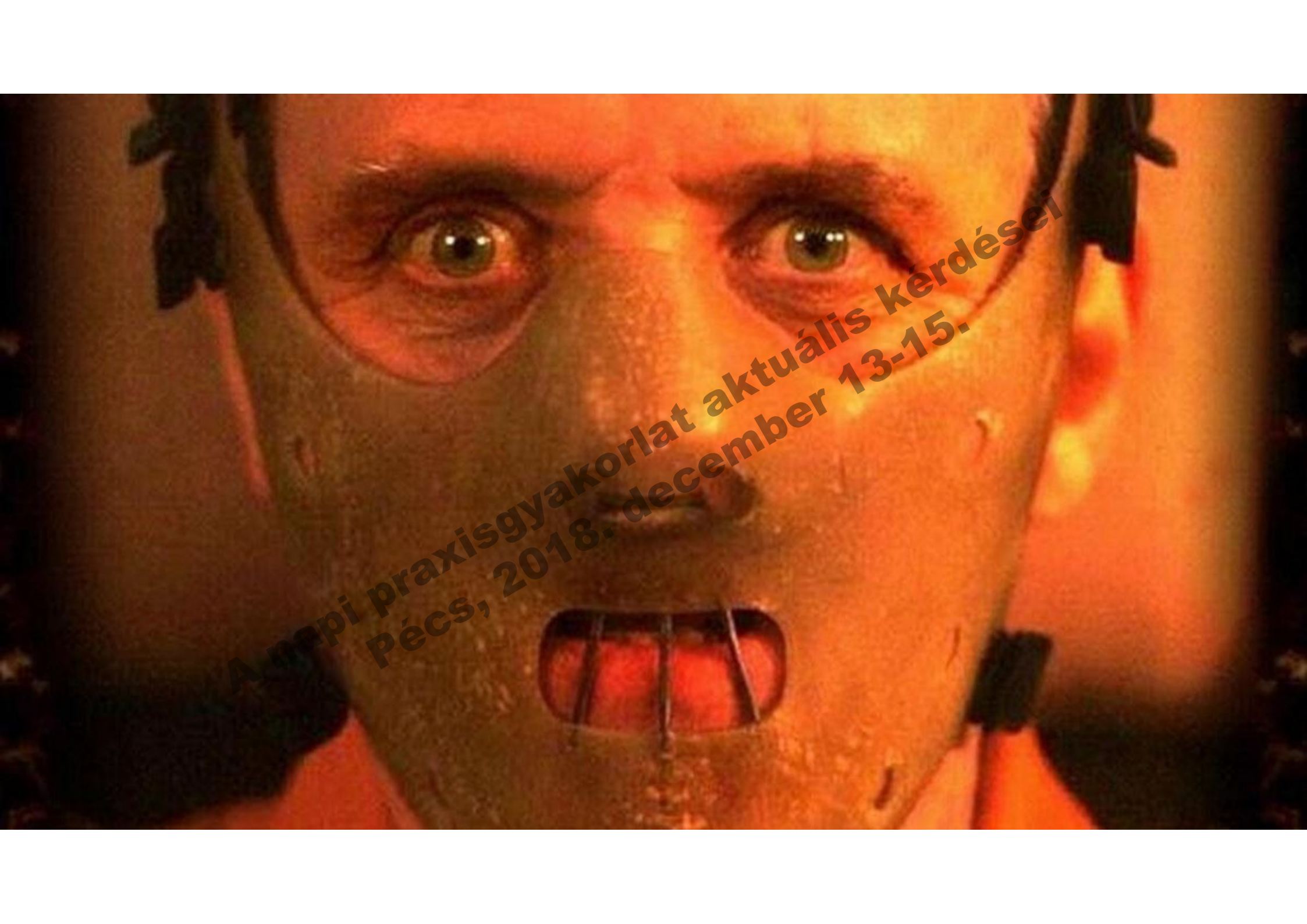


Destruált fog helyreállíthatósága kérdéses.

## **Quality guidelines for endodontic treatment: consensus report of the European Society of Endodontology**

### *Contra-indications for root canal treatment*

- 1 Teeth that cannot be made functional nor restored.
- 2 Teeth with insufficient periodontal support.
- 3 Teeth with poor prognosis, uncooperative patients or patients where dental treatment procedures cannot be undertaken.
- 4 Teeth of patients with poor oral condition that cannot be improved within a reasonable period.



A napi praxisgyakorlat aktuális kérdései  
Pécs, 2018. december 13-15.