

- dibular molars similar to a traditional access design? *J Endod.* 2018: 274–279.
25. NIEMI TK, MARCHESAN MA, LLOYD A, SELTZER RJ: Effect of Instrument Design and Access Outlines on the Removal of Root Canal Obturation Materials in Oval-shaped Canals. *J Endod.* 2016: 15150–1554.
  26. ÖZYÜREK T, ÜLKER Ö, DEMIRYÜREK EÖ, YILMAZ F: The effects of endodontic access cavity preparation design on the fracture strength of endodontically treated teeth: traditional versus conservative preparation. *J Endod.* 2018: 800–805.
  27. PATEL S, RHODES J: A practical guide to endodontic access cavity preparation in molar teeth. *Br Dent J.* 2007: 133–140.
  28. PETERS OA: Current challenges and concepts in the preparation of root canal systems: a review. *J Endod.* 2004: 559–567.
  29. PLOTINO G, GRANDE NM, ISUFI A, IOPPOLO P, PEDULLA E, BEDINI R et al.: Fracture strength of endodontically treated teeth with different access cavity designs. *J Endod.* 2017: 995–1000.
  30. ROVER G, BELLADONNA FG, BORTOLUZZI EA, DE-DEUS G, SILVA EJNL, TEIXEIRA CS: Influence of access cavity design on root canal detection, instrumentation efficacy, and fracture resistance assessed in maxillary molars. *J Endod.* 2017: 1657–1662.
  31. SILVA EJNL, ROVER G, BELLADONNA FG, DE-DEUS G, DA SILVEIRA TEIXEIRA C, DA SILVA FIDALGO TK: Impact of contracted endodontic cavities on fracture resistance of endodontically treated teeth: a systematic review of in vitro studies. *Clin Oral Invest.* 2018: 109–118.
  32. TANG W, WU Y, SMALES RJ: Identifying and reducing risks for potential fractures in endodontically treated teeth. *J Endod.* 2010: 609–617.
  33. TOURÉ B, FAYE B, KANE AW, LO CM, NIANG B, BOUCHER Y: Analysis of reasons for extraction of endodontically treated teeth: a prospective study. *J Endod.* 2011: 1512–1515.
  34. VERTUCCI FJ, HADDIX JE: Tooth Morphology and Access Cavity Preparation. In HARGREAVES KM, COHEN S: *Cohen's Pathways of the Pulp.* (10th ed.) Elsevier, St. Louis, 2010; 136–222.
  35. VIRE DE: Failure of endodontically treated teeth: classification and evaluation. *J Endod.* 1991: 338–342.
  36. YOSHIOKA T, KOBAYASHI C, SUDA H: Detection rate of root canal orifices with a microscope. *J Endod.* 2002: 452–453.
  37. ZEHNDER MS, CONNERT T, WEIGER R, KRASSTL G, KÜHL S: Guided endodontics: accuracy of a novel method for guided access cavity preparation and root canal location. *Int Endod J.* 2016: 966–972.

BALÁZS M, KOMORA P, TÓTH ZS

#### Minimally invasive access cavity in premolars and molars – review

There is an increasing number of case presentations in the social media and scientific forums, in which dentists and endodontists perform successful root canal treatments through tiny access cavities. This technical achievement cannot be carried out without proper instruments, magnification (operating microscope) and lighting. With a minimally invasive access cavity the root canal treatment itself can be complicated and time-consuming. In case of a tooth with complex anatomy the use of this method is limited. On the other hand, in simpler cases, if debris is eliminated and the pulp cavity is disinfected properly, it can be a real alternative for traditional access cavities. It enables us to preserve more coronal tooth structure, which makes final restoration easier to do, but the increase in fracture resistance has not been proved yet in vitro.

**Keywords:** minimally invasive access cavity, pericervical dentin, orifice oriented access, fracture resistance, operating microscope

## Pályázat Körmöczi-pályadíjra

Felhívjuk minden, a *Fogorvosi Szemlében* publikáló, rendezett MFE tagsággal rendelkező, 35 évnél fiatalabb első szerzős cikk szerzőjét, hogy pályázzanak a 2018-as Körmöczi-pályadíjra.

Pályázni csak a 2018-ban a *Fogorvosi Szemlében* megjelent közleményekkel lehet. Kérjük, a közlemény pdf változatát mellékelje a pályázathoz.

A pályázat beadási határideje: **2019. február 4.**

A pályázatokat, kérem, emailen juttassák el címemre!

Dr. Fejérdy Pál  
az MFE főtítkára  
fejerdy.pal@dent.semmelweis-univ.hu