References

- 1. Tzigkounakis V, Merglova V, Hecova H, Netolicky J. Retrospective clinical study of 90 avulsed permanent teeth in 58 children. Dent Traumatol 2008;24:598–602.
- Pohl Y, Tekin U, Boll M, Filippi A, Kirschner H. Investigations on a cell culture medium for storage and transportation of avulsed teeth. Aust Endod J 1999;25:70–5.
- 3. Pohl Y, Wahl G, Filippi A, Kirschner H. Results after replantation of avulsed permanent teeth. III. Tooth loss and survival analysis. Dent Traumatol 2005;21:102–10.
- Andreasen JO, Borum MK, Jacobsen HL, Andreasen FM. Replantation of 400 avulsed permanent incisors.
 Factors related to periodontal ligament healing. Endod Dent Traumatol 1995;11:76–89.
- Pohl Y, Filippi A, Kirschner H. Results after replantation of avulsed permanent teeth. II. Periodontal healing and the role of physiologic storage and antiresorptive-regenerative therapy (ART). Dent Traumatol 2005;21:93–101.
- 6. Trope M. Clinical management of the avulsed tooth: present strategies and future directions. Dent Traumatol 2002;18:1–11.
- Dewhurst SN, Mason C, Roberts GJ. Emergency treatment of orodental injuries: a review. Br J Oral Maxillofac Surg 1998;36:165–75.
- Pohl Y, Filippi A, Kirschner H. Results after replantation of avulsed permanent teeth. I. Endodontic considerations. Dent Traumatol 2005;21:80–92.
- Stewart CJ, Elledge RO, Kinirons MJ, Welbury RR. Factors affecting the timing of pulp extirpation in a sample of 66 replanted avulsed teeth in children and adolescents. Dent Traumatol 2008;24:625–7.

Response from the author

Dear Editor,

Allow me, please, with the following text to provide an answer to the letter that you have received concerning incorrect citations in our article:

Tzigkounakis V, Merglova V, Hecova H, Netolicky J. Retrospective clinical study of 90 avulsed permanent teeth in 58 children. *Dent Traumatol* 2008; 24:598–602.

Indeed in our article (1) is stated: 'The most critical factor for a successful replantation is the transport medium in which the avulsed tooth is stored until the transport of the child to the dentist and the extraoral time interval. Extraoral period is the time duration between the traumatic avulsion of the tooth until its replantation and it should be ideally be up to 20-30 min (2-8). In our study, only one tooth was replanted 30 min after the injury and in one case the child replanted the tooth itself at the place of the accident'.

In the authors' article (6-8) is stated: 'Dry storage of isolated teeth rapidly leads to cell death in the PDL adhering to the root (for overview, see 10). This process is slowed down by storage in certain media (milk, saline, saliva) but progressive and inevitable and therefore the storage in these conditions is limited to short periods (8-17)'.

We used the above sentence as a reference, to support our experience and opinion concerning extraoral time. Please, allow us to apologize to authors of (6-8) for incorrect citation of their article. Instead, we should have used as references the ones that were used by authors of (6-8), such as: (9-11). Concerning extraoral dry time, several studies have been published. Most of them agreed that 20 or - in other cases - 30 min is the maximum time limit that could allow us to expect better tissue healing after tooth replantation. What we really wanted to emphasize in our study, it was the fact that among 90 avulsed teeth, only one was replanted within 30 min, indicating poor knowledge on management of dental avulsions.

Concerning the second point: in our article is stated among all: 'Concerning the transport media, it has been proved that the ideal one is the Hanks Balanced solution in which the avulsed tooth could be stored even up to 24 h and the vitality of the periodontal ligaments will be saved (12, 13). The citations that are used to support this sentence are indeed 6 and 10 years old review studies. There is no reason for us to question the above citations, even if they are relatively old, as implied by the authors of (6–8).

Finally, concerning the third point of opposition: in our article (1) it is stated: '..... Endodontic treatment should be performed only when clinical and X-ray controls of the tooth with incomplete root development indicate a necrotic pulp'.

In the article (6-8) is described in the introduction part: 'Immature teeth may be revasculated following replantation. Depending on the width of the apical foramen and on the length of the pulp the chance of revascularisation was about 10–50% in avulsed and replanted teeth (17). In case of pulp necrosis the instillation of calcium hydroxide is used to treat the endodontic infection and to induce the formation of an apical hard tissue barier (apexification)...'.

The authors of (6-8) supported the above sentence, using references (14, 15). Instead of using as a reference the articles of authors (6–8), we should have used the same references (14, 15) that the authors of (6–8) have used.

Yours sincerely,

Vasileios Tzigkounakis

Charles University, Pediatric Dentistry Department of Faculty of Medicine in Pilsen, Faculty Hospital, Alej Svobody 80, 304 60, Plzen, Czech Republic e-mail: tzigkounakis@fnplzen.cz

References

- Tzigkounakis V, Merglová V, Hecová H, Bakland LK, Malmgren B, Netolický F. Retrospective clinical study of 90 avulsed permanent teeth in 58 children. Dent Traumatol 2008;24:598– 602.
- Andreasen JO, Andreasen FM. Essentials of traumatic injuries to the teeth, 2nd edn. Copenhagen: Munksgaard Mosby; 2000.p. 113–31.
- Flores MT, Andersson L, Andreasen JO, Bakland LK, Malmgren B, Barnett F. Guidelines for the management of traumatic dental injuries. II. Avulsion of permanent teeth. Traumatology 2007;23:130–6.
- 4. Trope M. Current concepts in the replantation of avulsed teeth. Alpha Omegan 1997;90:56–63.

- Andreasen JO, Andreasen FM. Avulsions. Textbook and color atlas of traumatic injuries to the teeth, 3rd edn. St Louis, MO: Mosby; 1994. p. 383–425.
- Yango Pohl, Andrea Filippi, Horst Kirschner. Results after replantation of avulsed permanent teeth. I. Endodontic considerations. Dent Traumatol 2005;21:80–92.
- Yango Pohl, Andrea Filippi, Horst Kirschner. Results after replantation of avulsed permanent teeth. Periodontal healing and the role of physiologic storage and anti-resorptive-regenerative therapy. Dent Traumatol 2005;21:93–101.
- 8. Pohl Y, Wahl G, Filippi A, Kirschner H. Results after replantation of avulsed permanent teeth. III. Tooth loss and survival analysis. Dent Traumatol 2005;21:102–10.
- 9. Andreasen JO, Paulsen HU, Zhijie Y, Schwarz O. A long-term study of 370 autotransplanted premolars. Part III. Periodontal healing subsequent to transplantation. Eur J Orthod 1990;12:25–37.

- Doyle DL, Dumsha TC, Sydiskis RJ. Effect of soaking in Hank's balanced salt solution or milk on PDL cell viability of dry stored human teeth. Endod Dent Traumatol 1998;14:221–4.
- Hiltz J, Trope M. Vitality of human lip fibroblastsin milk, Hank's balanced salt solution and Viaspan storage media. Endod Dent Dent Traumatol 1991;7:69–72.
- 12. Trope M. Clinical management of the avulsed tooth: present strategies and future directions. Dent Traumatol 2002;18:1–11.
- Dewhurst SN, Mason C, Roberts GJ. Emergency treatment of orodental injuries: a review. J Oral Maxillofac Surg 1998;36:165– 75.
- Andreasen JO, Borum MK, Jakobsen HL, Andreasen FM. Replantation of 400 avulsed permanent incisors. 2. Factors related to pulpal healing. Endod Dent Traumatol 1995;11:59–68.
- 15. Kleier DJ, Barr ES. A study of endodontically apexified teeth. Endod Dent Traumatol 1991;7:112–7.

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.