Treatment of teeth that have undergone intrusive luxation is controversial, and no optimal treatment has been determined. There are some treatment alternatives (2):

- *In the primary dentition*, It is extremely difficult to treat such injuries and there is an ongoing discussion about the advisability of extracting the intruded teeth, as opposed to wait and assist their natural repositioning using non-invasive techniques aimed at the maintenance of the eruptive space in the dental arch (3). The permanent successor develops lingual to the primary incisor. If the intruded tooth impinges on the permanent tooth, the primary tooth should be extracted immediately and as atraumatically as possible to prevent injury to the permanent tooth bud. Proper extraction techniques are used to prevent further injury of the developing tooth germ. If the intruded tooth is facially displaced and appears not to have involved the permanent successor, the tooth should be allowed to re-erupt spontaneously.
- *In the permanent dentition*, immediate surgical repositioning of the tooth into its proper place in the arch can be carried out. However, there is a greater incidence of external root resorption, increased risk of sequestration, and marginal bone loss.
- The tooth can be allowed to re-erupt if the tooth is immature.
- Low force orthodontic repositioning of both immature and mature teeth that have undergone intrusive luxation can be carried out over a period of 3–4 weeks to arrest pulp necrosis and external root resorption, which has been found 96% of fully formed intruded teeth (2).

Surgical removal of the teeth was the beneficial solution for this case, because the patient was referred to the clinic very late, shape and size of the teeth were not suited for the orthodontic rehabilitation, and the patient did not admire orthodontic treatment approach.

The highest prevalence of developmental disturbances of permanent teeth is found after intrusive injuries of primary teeth (4–6). Intrusion can occur not only in early ages (1–3 years), but also at ages 3 and 5 years (6, 7). The extent of the malformation depends on the developmental stage of the permanent tooth and intensity of the trauma. A trauma in the primary dentition may affect the coronal or root region or the whole of the permanent tooth germ (5). Crown dilaceration occurs in cases with trauma at an age between 1.5 and 3.5 years, and root malformation between 4 and 5 years of age (8).

Follow-up care for dental trauma is very important for young patients (4). After surgery, the patient was referred to the pediatric dentistry clinic for further follow-up.

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Delayed multidisciplinary management of an extrusively luxated maxillary central incisor

Dear Editor,

We would like to comment on the article 'Delayed multidisciplinary management of an extrusively luxated maxillary central incisor' by Sübay et al., that appeared in your journal (1).

First, the authors omitted from the heading and the summary that two teeth were affected by trauma. Clinically, the right central incisor was extrusively luxated while the left central incisor had a horizontal crown fracture, which might have been commented and discussed.

The case report is rather confused because the authors reported that the crown of the left central incisor, which was fractured horizontally, was intact and diagnosed as non-vital after cold and electric pulp tests. After that, they reported that the same tooth was vital, thus contradicting what was previously said by them and diagnosed by the tests.

Performing an electrical pulp test seems to be questionable as the left central incisor already had a pulp exposure and, therefore, endodontic therapy would be indicated. According to Radhakrishnan et al. (2), electric and pulp tests can present false-positive results only if the pulp vascularization is compromised. These testing methods were described as having the disadvantage of producing

unpleasant and occasionally painful sensation and inaccurate results (false-positive or false-negative), mostly in young patients (3).

The removable appliance indicated for treating the right central incisor with extrusive luxation is also questionable. An orthodontic intrusion is supposed to be carried out to reposition the dental element. However, the authors did not specify which removable appliance was used in the treatment and the references mentioned showed no photographs of such an apparatus. Thus, the orthodontic treatment indicated cannot be reproduced. Moreover, the author did not report the time elapsed between the endodontic therapy and the beginning of the orthodontic intrusion.

In addiction, according to Sathorn et al. (4), the use of intracanal medications like calcium hydroxide is meant to maximize the chances of bacterial eradication from root canals. In the paper, however, the author kept the right and left central incisors filled with the interim placement of slurry calcium hydroxide for just 1 week, a procedure not supported in the literature. It is still questionable why the endodontic therapy was performed in two visits. Mohammadi et al. have reported that a growing perception in endodontic circles is that root canal therapy requires one treatment visit only (5). One-visit endodontic treatment offers many potential advantages such as being less time consuming, less painful, and less traumatic to the patient compared with the multi-visit treatment.

Besides these issues, the paper did not present a conclusion. It would be very important to have some comments about the treatment success, including final radiographs after a 1-year follow-up, and about the importance of early treatment in cases of extrusive luxations.

Yours sincerely,

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Response to Delayed multidisciplinary management of an extrusively luxated maxillary central incisor

Dear Editor,

I would like to thank the readers for their very valuable evaluations and criticism about our case report ' Delayed multidisciplinary management of an extrusively luxated maxillary central incisor' that was published in *Dental Traumatology* (1).

First, the readers criticize the title and the summary of the case report as we did not write about the horizontally crown-fractured left central incisor tooth in these sections of the article. Extrusively luxated and multidisciplinary treated cases due to the treatment delay have been very rarely published in the dental literature. As it was searched to the year 2004 and written in the article, there was only one similar report published by Alacam & Ücüncü (2). So, the title and the summary were focused to present the treatment of the extrusively luxated tooth rather than the horizontally crown-fractured tooth. The management of crown fractures in both permanent and immature cases is well known and documented and was not considered interesting to be mentioned in the title and the summary sections of a case report article by the authors. On the other hand, the clinical and radiographical findings and the treatment of the fractured tooth were mentioned in the case report section to give information about the effects of dental trauma in detail.

Secondly, the readers mention that there was confusion about the clinical findings of the horizontally fractured left incisor tooth. There is no contradicting clinical finding reported in the text about both traumatized incisors. As clearly shown in the first figure of the article and written in the case report section, there was a horizontal crown fracture at the left incisor tooth. The readers must check the case report section, so they can review that the sixth and the seventh sentences of the second paragraph 'The tooth was diagnosed as non-vital after electrical pulp and cold test' and 'There was no color change in the crown and the crown of the tooth was intact' are about the luxated right incisor tooth and not about the crown-fractured left incisor.

Thirdly, the readers noted that the orthodontic treatment employed in the case is questionable because we did not specify the orthodontic apparatus in the text and the time period between the