Reply to: letter to the editor about the article published in Clinical Oral Investigations tilted: impacted and transmigrated mandibular canines: an analysis of 3D radiographic imaging data (Bertl MH, Frey C, Bertl K, Giannis K, Gahleitner A, Strbac GD (2018) Clin Oral Investig, doi: 10.1007/s00784-018-2342-0

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We would like to thank our colleagues Plakwicz and Kukuła for their extended interest in our study. Regarding their inquiry on resorptions of impacted mandibular canines, we would like to provide the following additional information:

1. While we agree that CBCT may only serve as an adjunctive diagnostic tool to confirm ankylosis, the use of all other mentioned diagnostic tools (percussion sound, attempted orthodontic eruption and histological examination) are unfortunately inherently unavailable in
  - a) A retrospective analysis of CT/CBCT images
  - b) The primary diagnosis of unerupted teeth in general
2. The referenced 16 canines presented a combined diagnosis of either resorption or ankylosis, without specifying the exact location of the pathology. We therefore gladly revisited the scans of those 16 canines and may provide the following additional data:
  - a) All 16 canines were indicative of ECR rather than ERR.

- b) Resorption extended almost exclusively within the crown and above the CEJ. For only three canines, the resorption extended to the coronal third of the root and for one to the middle third of the root.
  - c) Pulpal involvement was probable in all 16 canines.
3. We furthermore reexamined the medical histories of those 16 canines and found that only one case had reported a previous orthodontic and/or surgical procedure to the canine. The referenced 22 incidents of orthodontic traction therapy referred to the treatment applied AFTER the analysed CT/CBCT scan.
4. As mentioned in the original article, the most obvious (and significant) relation between those 16 cases of ECR in impacted mandibular canines was the higher age of patients at the time of CT/CBCT imaging (median age 47 years).

With this, we hope to have shed some additional light on the nature of resorptions in impacted mandibular canines.

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