LETTER TO THE EDITOR

Localized periodontal ligament space widening as the only presentation of scleroderma—reliability recheck: Author response

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With reference to the letter by Prasad R and Pai¹ in the July 2012 edition of DMFR, we appreciate the authors' comments and interest in this topic. In the following paragraphs, we have tried to reply to the queries discussed.

We performed only routine oral examinations on our patients who were referred for dental radiographic evaluation. There could have been involvement of other organs such as the oesophagus, lungs and kidneys; however, none of the patients was aware of having scleroderma. Exact medical diagnostic evaluation is required for determining such involvement and we did not mention the complete diagnostic process for these patients. Regarding the title of our article, it presents the early diagnosis of progressive systemic sclerosis (scleroderma) from a panoramic point of view, in patients unaware of their disease.

Various possibilities and theories have been suggested to explain the mechanism of periodontal ligament (PDL) widening in scleroderma patients, by authors such as Auluck^{2,3} and Mehra;⁴ however, none has yet been proved. Determining the cause of PDL widening in these patients requires more research.

In our paper, we discussed the early manifestation of scleroderma from a panoramic point of view; these patients do not necessarily fulfil the clinical criteria of the disease at first, and they may present with one symptom and appear to have other involvement later. In addition, we did not find any mention of the diagnosis of scleroderma necessitating the association of PDL widening with at least one of the signs listed by Prasad R and Pai in the references listed in their letter.¹ As we mentioned in the discussion of our article, widening of the PDL may also occur in malignancies and trauma from occlusion. In malignancy, the lamina dura does not remain intact, and PDL widening takes place in the teeth located around the lesion. Conversely, in scleroderma, the lamina dura remains intact, and PDL widening occurs in more than one quadrant and usually in the posterior teeth.⁵

PDL widening occurs in trauma from occlusion, but in association with angular bone defects and mobility of teeth.^{4,6} However, in scleroderma, involved teeth are often not mobile and their gingival attachments are usually intact. Certainly, we found no predisposing factor to trauma from occlusion and also no angular bone defects or mobility of teeth in our patients. Trauma from occlusion due to orthodontic treatments is usually generalized; furthermore, none of our patients had a previous history of orthodontic procedures.

We have recommended that scleroderma should be considered in the differential diagnosis in patients showing unexplained prominent widening of the PDL with an intact lamina dura but without trauma from occlusion, especially if PDL widening is located in the posterior teeth and in more than one quadrant. However, we do not suggest performing skin biopsy in all patients with only PDL widening without the mentioned conditions. In Case 2, after ruling out trauma from occlusion, concerning the intact lamina dura and involvement of two quadrants, and considering that some authors have reported a few scleroderma patients who had PDL widening in posterior teeth only,² we performed a skin biopsy to make the diagnosis of scleroderma.

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