CASE REPORT

Multiple internal resorptions in deciduous teeth: a case report

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We report a case of rare multiple internal resorptions. Etiology of multiple internal resorptions is unknown. Interestingly, the patient had an atopic dermatitis, which is possibly related to multiple and rapid internal resorptions.

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Case report

A 4.7-year-old female patient was referred from a local dental clinic for the management of multiple internal resorptions in the deciduous teeth. It was reported that her mandibular deciduous right canine was exfoliated spontaneously. She also had severe atopic dermatitis (Fig. 1). Radiologic examination revealed that several teeth (nos 54, 64, and 84) had severe resorptions (Fig. 2). Root rest of the exfoliated tooth (no. 83) was identified. Three weeks later (second visit), the coronal part of the teeth in question (nos 54, 64, and 84) were extracted and sent for histologic examination. Another 3 weeks (third visit) later, change in the color of mandibular deciduous left first incisor (no. 71) was noticed and radiologic examination confirmed internal resorption (Fig. 3). Pulp treatment was performed to preserve the tooth from further resorption. Ten weeks later (fourth visit), the patient had a radiographic sign of internal resorption in the mandibular deciduous right second incisor (no. 82). A month later (fifth visit), mandibular deciduous left first molar (no. 74) had clinical and radiologic signs of internal resorption (Fig. 4).

Histologically, the pulp tissue showed chronic inflammation with wide areas of lympho-plasma cell infiltra-

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Figure 1 Atopic dermatitis of the patient at the first visit.



Figure 2 Full-mouth dental radiographs at the first visit. Note severe internal resorptions of teeth 54, 64, and 84. Root rest of spontaneously exfoliated tooth 83 can be seen.



Figure 3 Full-mouth dental radiographs at the third visit. Note internal resorption of tooth 72.

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Internal resorption is usually seen in isolated teeth and the resorption progresses more rapidly in deciduous teeth than in permanent teeth (1). Trauma has been considered as the most common contributory factor (2). However, multiple internal resorption is rare (3) and its etiology is unknown. The relationship with systemic disease has not been reported.

The patient in this report had severe atopic dermatitis caused by the so-called sick house syndrome. There were two outbursts of atopic dermatitis a few weeks before the first and fifth visits. It has been known that resorptive process is often intermittent and there may be periods of repair (4). This is clearly shown in this case even with rapid internal resorption. The process of repair in this patient might be related to the relief period between two episodes of atopic dermatitis. It is possible that the systemic inflammatory response elicited multiple internal resorption in this patient, although the exact pathological relationship is not known.

Once idiopathic internal resorptions in several teeth are identified, thorough examination and short-term follow-up should be performed to preserve the teeth from rapid resorptive process.

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Figure 4 Dental radiographs at the fifth visit before (left) and after (right) pulp treatment of tooth 74.



Figure 5 Histologic section of tooth 54. Pulp tissue shows chronic inflammation and epithelial cell proliferation (1) and wide areas of lympho-plasma cell infiltration (2). Dentin shows areas of new osteodentin formation (3) after generalized resorption (4).

tion and epithelial cell proliferation (Fig. 5). Dentin showed generalized resorption and areas of new osteodentin formation. It seemed that the epithelial cells came from outside of the teeth after internal resorption reached root perforation. 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.