Follow-up of 2 Traumatic Cases of Severely Intruded Deciduous Teeth

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Abstract: Two traumatic cases of severely intruded deciduous teeth were evaluated for several months. One case was a complete intrusion of the primary upper central teeth. The intruded teeth re-erupted spontaneously within a month but needed endodontic treatment after 6 months. The other case was a severe lateral intrusion of the upper central tooth, which re-erupted labially but did not reach the incisal plane even after one year. It produced no complication of the pulp but re-alignment procedure will be needed.

Key words: traumatized teeth, primary central tooth, intrusion, re-eruption

Introduction
The prevalence of traumatic intrusion of the primary teeth is about 7 to 24% among the primary teeth according to epidemiological data1). The maxillary central incisor is the most frequently injured teeth2).

The treatment of intruded teeth is still debated; If it should be awaited to spontaneously re-erupt, reposition or exfoliate. Treatment should depend according to the case of each patient.

Two traumatic cases of severely intruded deciduous teeth were evaluated for several months.

Case report
Case 1. A 2-year 4-month-old boy fell down in the bathroom at night and came to the dental hospital.
The anterior teeth were severely intruded (Fig.1). Irrigation and dose of antibiotics and analgesics was done and spontaneous re-eruption was awaited. An X-ray was taken the next morning (Fig.2). The spontaneous eruption of the anterior primary central teeth occurred for a very short period (Fig.3) but canal treatment was needed after 5 months from traumatic injury. Discoloration was seen on both central incisors at the age of 3-years 5-months (Fig. 4, 5).

Case 2. A 3-year 2-month-old boy fell and was injured in the house at 7 in the evening. The patient was first brought to a neighborhood dental clinic but was then referred to our dental hospital. He came at 10 in the evening. Labial displacement of the upper left central primary tooth was seen, repositioning was considered but spontaneous re-eruption was decided if it would keep the pulp condition vital (Fig. 6, 7). Irrigation and dose of antibiotics and analgesics was done. The intruded teeth re-erupted slowly but labially and did not reach the incisal plane at the age of 3-years 7-months.

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of 4-years 2-months (Fig. 8).

It produced no complication of the pulp but the radiograph shows the radiolucent areas in the apex of the right and left central primary tooth (Fig. 9). Monitoring of the pulp condition of the injured teeth and re-alignment procedure of the tooth will be considered.

Discussion and Conclusion:

It seemed appropriate that conservative therapy be favored in these cases. Ishikawa\(^3\) said that the prognosis was usually better if spontaneous re-eruption be considered than to reposition severely intruded teeth. Intrusion and subluxation were responsible for a large number of cases of pulp necrosis. The rate of pulp vitality and pulp necrosis is almost 50% in patients aged 0-3 years\(^2\).

We should observe the pulp condition until the succeeding permanent tooth erupts normally.

References

4. Pugliesi DMC, Cunha RF, Delbem ACB and Sundefeld MLMM. Influence of the type of dental trauma on the pulp vitality and the time elapsed until treatment: a study in patients aged 0-3 years. Dent.Traumatol 20:139-142, 2004