

CASE HISTORY : REPOSITIONING OF AN ECTOPIC LOWER INCISOR

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Over the last four years, the author has encountered five patients having one or more ectopic lower incisors erupting in the first bicuspid region. Graber (1972) describes ectopic eruption — “in its most common form, a permanent tooth erupting through the alveolar process causes resorption of a contiguous deciduous tooth rather than its predecessor”.

Typically, these present in the incisor region with premature exfoliation of a lower first deciduous molar and eruption of the lower lateral incisor in that region often with the deciduous canine and second deciduous incisor still in place. Of the five cases seen, three have been treated and one is currently under treatment. The case described here is the longest out of retention and is now entering the permanent dentition which seems an ideal time to assess the treatment.

Treatment Planning

Two possible treatments for this condition are:

- a) Extraction of the offending tooth.
- b) Movement of the tooth into a normal position.

Critical factors in assessing which course of action is best are:

- a) Timing — the lower permanent canine must still be well down in the alveolus. If left too late the canine may commence its eruption mesial to the ectopic incisor and impede mesial movement. If the canine eruption proceeds, a complete transposition will result.
- b) Position of the apex of the incisor—in all cases seen by the author, the apex has been close to a normal position enabling mesial tipping to be carried out followed by a small amount of root movement to upright the tooth.
- c) Arch length — the case described here was a potential non-extraction case. These are the cases where treatment is most justified to maintain a full complement of incisors.
- d) Occlusion — in some malocclusions a reduced number of incisors is more acceptable than in others. e.g. Class 3. In others, where overbite is a problem, ultimate overbite correction and maintenance may be easier with four lower incisors.

Appliance Therapy

The author has found that fixed multibanded appliances provide the best control and the Begg bracket, by allowing mesial tipping of the crown followed by uprighting utilising an auxiliary, is very suitable.

It is often necessary to relieve the occlusion on the ectopic tooth. This was done with an upper removable appliance with posterior occlusal coverage. Frequently these teeth are in occlusion with the upper first deciduous molar.

Case Report

The patient was examined initially in January, 1973, aged 8 years. The occlusion was Class I and the lower right lateral incisor was found to be erupted in the lower

right bicuspid region. Lower right deciduous teeth were all missing except the second molar. (Figure 1 A).

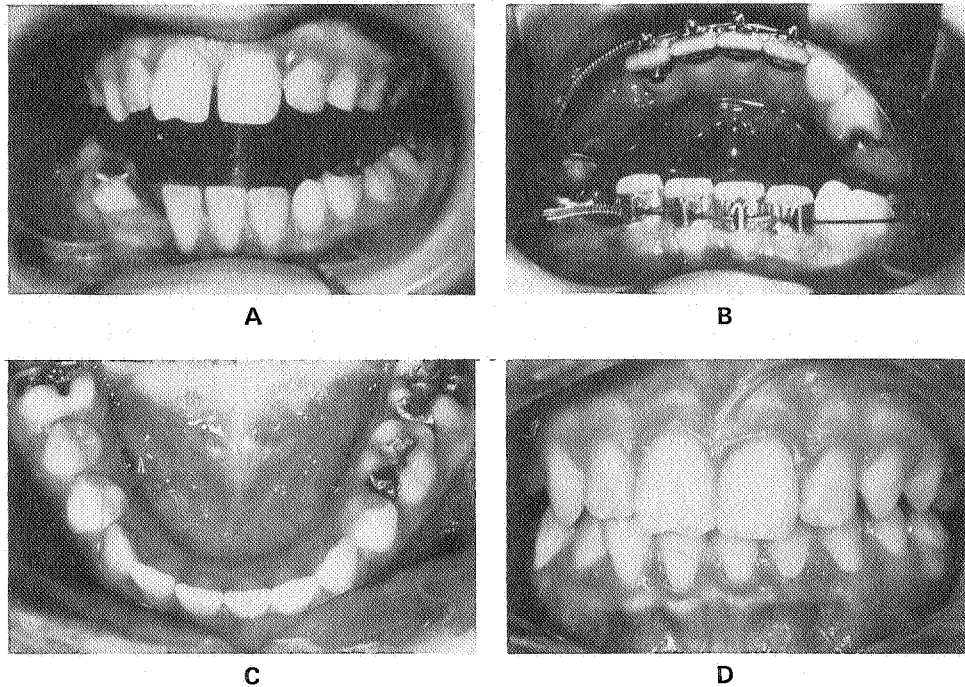


Fig. 1. Lower right lateral incisor: A. Before treatment. B. During treatment. C and D. Out of retention.

In March 1973, bands were placed on all four lower incisors and second deciduous molars. An .016" archwire was placed with an open coil spring to move the ectopic tooth mesially. (Figure 1 B). An upper removable appliance was placed at the same time to relieve the occlusion on the ectopic tooth. In October 1973, the tooth was approximating the central incisor and uprighting was commenced using a preformed .014" uprighting spring. In February 1974, a soldered lingual retainer was placed from lower right to lower left lateral incisor following band removal. This was removed in July, 1975. It was felt desirable to retain these teeth until eruption of the adjacent lower canine. The patient is now in the very late mixed dentition and is emerging with a good occlusion and adequate arch length. (Figure 1C, 1D). It seems that the timely treatment in this case was justified. A recent radiograph shows no root damage to the ectopic tooth.

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Reference

Graber T M (1972): *Orthodontics : Principles and practice*. Saunders Co. Philadelphia.