

Pacifier Sucking in a Child With Cleft Palate: Occlusal Consequences

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Objective: The case of a child with a repaired cleft palate and a pacifier habit is presented. The influence of both the cleft and the habit on the malocclusion is discussed. The malocclusion disappeared as the habit ceased.

KEY WORDS: *cleft palate, malocclusion, pacifier*

A pacifier sucking habit is very common among babies today. Incidences between 20% and 95% have been reported (Larsson and Dahlin, 1985; Turgeon-O'Brien et al., 1996; Farsi et al., 1997; Vadiakas et al., 1998).

Though nonnutritive sucking is regarded as a normal part of development (Warren and Bishara, 2002), this habit also has been determined to affect occlusion and arch form. Malocclusions that have been related to pacifier use include anterior open bite (Svedmyr, 1979; Larsson, 1986), posterior crossbite (Svedmyr, 1979; Ogaard et al., 1994), increased overjet (Ravn, 1976; Lindner and Hellsing, 1991), increased prevalence of a class II primary canine relationship and distal step terminal plane relationship (Bowden, 1966; Ravn, 1976; Farsi et al., 1997), and decreased upper and increased lower intercanine arch width (Ogaard et al., 1994). Malocclusions in primary dentition caused by nonnutritive sucking are typically self-corrected if the sucking habit disappears (Ravn, 1976; Larsson, 1986; Turgeon-O'Brien et al., 1996).

This report describes the case of a child with a cleft palate using a conventional pacifier who presented a malocclusion.

CLINICAL CASE

A 1.8-year-old child was referred with a malocclusion that was thought to be the sequelae of a repaired cleft palate. The patient had no caries, unerupted second primary molars, and a class II primary canine on the cleft side associated with an asymmetric anterior open bite that extended from the cuspid to the central incisor. She appeared to be developing a functional tongue thrust because of the open bite (Fig. 1). The child used the pacifier in an atypical manner, corresponding to the place at which the open bite had developed.

The only treatment consisted of persuading the parents to wean the child off the pacifier. Six months later, the open bite had closed and although there was still a class II primary ca-

nine relationship, the sagittal malocclusion also had improved (Fig. 2). Thus, the self-correction of malocclusions in primary dentition caused by nonnutritive sucking observed in children without cleft would appear to be possible in children with a repaired cleft palate as well.

DISCUSSION

Some malocclusions in the primary dentition may be caused by the use of a pacifier or also may be a sequelae of repaired cleft palate. Posterior crossbite is very frequent in patients with cleft palate, but it may also occur if the baby with a cleft palate uses a pacifier. The pacifier causes the tongue to assume a lower position in the oral cavity, exerting increased lateral pressure on the lower canines and molars and creating a narrower upper arch because of the lack of palatal support from the tongue (Lindsten et al., 1996).

Anterior open bite is also frequent in cleft palate patients because of decreased maxillary height (Molsted and Dahl, 1990). However, it also may appear in such a patient if the child uses a pacifier because of a vertical reduction in alveolar growth (Larsson, 1986).

Although no studies were found with regard to the prevalence of pacifier use among children with cleft palate, it would be helpful to know the incidence of the habit in this specific population. Malocclusions caused by pacifiers could be more



FIGURE 1 Frontal view of the malocclusion.

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FIGURE 2 Frontal view following treatment.

serious in patients with cleft palate because they already have a tendency to crossbite and vertical problems (Molsted and Dahl, 1990).

CONCLUSION

It is important that etiological factors not related to the cleft be considered when evaluating malocclusion in children with cleft palate.

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