# Letter to the Editor

## Commentary on the article "The transpalatal arch: an alternative to the Nance appliance for space maintenance." Drs. Kupietzky and Tal (May-June 2007)

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The article by Drs. Kupietzky and Tal on the transpalatal arch[1] (TPA) was a thorough but somewhat incomplete review of the challenges facing the clinician when determining appropriate appliance management for space control in the maxillary arch.

The authors are correct in pointing out some of the potential deficiencies of the Nance appliance. However, data from private practice published by Moore and Kennedy[2] demonstrates that there was only one soft tissue lesion attributable to 43 Nance failures out of a total of 205 placed Nance appliances. These patients were in the late mixed dentition and demonstrated a failure rate significantly less than reported by other studies.[3,4] Additional data from Fathian et al[5] revealed that there were no soft tissue lesions attributable to the 20 failed Nance appliances out of a total of 69 placed in the early mixed dentition. Therefore, only 1 of 274 Nance appliances showed soft tissue lesions. This second article is yet to be published but puts into perspective the minimal degree to which the Nance appliance causes soft tissue lesions in our private practice.

The authors are also correct in suggesting that the transpalatal arch can control upper molar vertical position by tongue pressure. Lacking from the article is the demonstration that the tongue is frequently indented by the transpalatal arch representing a soft tissue problem with the TPA which rarely occurs with the Nance appliance. In my clinical experience this tongue indentation commonly occurs with the transpalalatal bar, though it remains undocumented in the literature.

The authors are correct in identifying the theoretical manner in which the transpalatal arch can prevent molar rotation and therefore serves as a space maintainer. However it is disappointing to note that molar rotation is present in the clinical cases shown in figures 1A, 4 and 5. The article is devoid of commentary regarding the potential for correcting the molar rotation to enhance the ability of the transpalatal arch to hold or even regain lost space. This is best accomplished by using a fixed removable appliance with lingual sheaths on the molar bands which allow the clinician the opportunity to rotate the molars without having to remove the appliance and recement it. The authors' recommendation to periodically remove and recement the Nance carries the danger of band stretching and distortion which may contribute to the already high failure from cement loss.[2-5]

We have evidence that unilateral primary tooth loss can result in movement at both the posterior and anterior aspects of the dentition.[6-8] It is disappointing that no commentary was made relative to control of anterior movement to prevent midline discrepancies from occurring.8 Indeed the authors indicate that the clinician should "consider the transpalatal arch when one side of the arch is intact and several primary teeth are missing on the other side" without reference to midline management. This can be managed with a Nance space maintainer by placing a soldered spur to control the midline. By contrast, the TPA does not lend itself to appliance modification to control the midline.

I hope that these comments will enhance the clinician's ability to better manage their patients who exhibit early loss of primary teeth. I was delighted that the author indicated that we lack evidence as to the clinical effectiveness of space maintainers regardless of their design.

### References:


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