Speech and Surgical Outcomes in International Adoptees with Cleft Palate

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Purpose:
International adoptees with cleft palate undergo initial palatoplasty at an older age than non-adoptees. The effect of this delay in treatment is unknown. This study compares speech and surgical outcomes of adopted to non-adopted patients and examines the influence of age at initial palatoplasty.

Methods:
Speech and surgical outcomes were compared for non-syndromic international adoptees and non-adoptees with Veau type 3 or 4 clefts initially repaired at our institution since 2007. Speech evaluations completed at or near 5 years of age were gathered from a prospectively collected institutional database. Linear regression was used to examine the relationship of adoption status and age at palatoplasty with speech outcomes, oronasal fistulization, and secondary speech surgery.

Results:
70 adoptees and 211 non-adoptees met inclusion criteria. Average clinical follow-up was 4.8 years, and speech outcomes data was available for 56% of this group. Adoptees underwent initial palatoplasty 5.2 months after arrival in the US, and a mean of 10.4 month later than non-adoptees. Adoptees were significantly more likely to develop moderate/severe velopharyngeal insufficiency (VPI), and trended towards more frequent need for secondary speech surgery. Oronasal fistulas occurred at similar rates in both populations. Older age at initial palatoplasty was a significant predictor of moderate/severe VPI, and secondary speech surgery.

Conclusions:
International adoptees undergo initial palatoplasty 10.4 months later than their non-adopted counterparts, and are significantly more likely to develop moderate/severe VPI, with a trend towards increased secondary speech surgery. The relationship between treatment delay and an increased likelihood of VPI and secondary speech surgery has been re-demonstrated. While a causal relationship between delayed repair and inferior outcomes in international adoptees has not been proven, this data is quite suggestive that surgical intervention upon unrepaired cleft palates soon after adoption might be beneficial. Given that half of the 10.4 month relative delay in palate repair occurs post-adoption, the opportunity for a meaningful change in practice exists.

Arguments against early post-adoption palatoplasty include that this might disrupt child adjustment, feeding, and family bonding, or that lingering malnutrition might predispose recent adoptees to fistulae. In the absence of conclusive data, international adoptees and their families should be considered individually. While accelerated palate repair should be favored, malnutrition or circumstances affecting adoptee adjustment and family bonding may reasonably override this concern.