Changes and consistencies in the epidemiology of pediatric adenotonsillar surgery, 1996-2006

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ABSTRACT

• Throughout the 2,000 year history of adenotonsillar surgery, controversy has surrounded the procedures’ indications, efficacy and safety. This is largely due to the wide variety of indications that otolaryngologists have interpreted as ‘‘chronic tonsillitis’’ over the past decades.

• Statements made at a 2009 United States presidential press conference on healthcare reform and the latest cost containment and healthcare reform, it is more important than ever for otolaryngologists to critically analyze the existing data and be transparent about the management of pediatric adenotonsillar surgery.

• The assertion that a revamped healthcare system would provide more medical therapeutic options for chronic adenotonsillitis in favor of potentially more lucrative surgical options in the current era is misleading.

• Given that there may be a public misconception about the financial incentives and rewards.

RESULTS

• In 1996, an estimated 441,870 (6.3 years, 51.8% male) and 24,827 children (6.1 years, 58.3% male) underwent adenotonsillectomy in the ambulatory and inpatient settings, respectively.

• In 2006, an estimated 682,598 (6.3 years, 51.8% male) and 34,372 (7.3 years, 65.6% male) children underwent adenotonsillectomy in the ambulatory and inpatient settings, respectively.

• The inclusion of both NSAS and NHDS data provides not only the aggregate numbers of tonsillectomy, adenotonsillectomy and adenoidectomy on a national level, but also incorporates both outpatient and inpatient performances.

• Although there was an overall increase in the rate of performance of adenotonsillectomy for infectious indications from 2.50 per 1000 to 1.46 per 1000 from 1996 to 2006, the rates and incidence of adenotonsillectomy for chronic infectious etiologies significantly declined in the ten year period indicating that otolaryngologists are in fact currently operating on a child for chronic infective indications for the first time in over a decade.

DISCUSSION

A National Cooperative Program for Adenotonsillectomy:
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• In 1996, an estimated 441,870 ± 23,315 (6.3 years, 51.8% male) and 24,827 ± 18,960 children underwent some form of adenotonsillar surgery in the ambulatory and inpatient settings (55.2% of tonsillectomies, 253,347 ± 23,784 adenotonsillectomies and 12,018 ± 11,207 adenoidectomies), while in 1996, in the United States, 128,618 ± 11,045 children underwent tonsillectomies, 502,778 ± 33,054 adenotonsillectomies and 129,540 ± 15,714 adenoidectomies. However, when examined from an infectious indications, a notable decline in the population rate of tonsillectomy decreased from 0.92 per 1,000 children in 1996 to 0.67 per 1,000 in 2006 (p=0.023). Moreover, no notable decline in the rate for adenotonsillectomy for infectious indications from 2.50 per 1000 to 1.46 per 1000 was significant (p>0.05).

• There were no significant change adenotonsillectomy new for chronic infection indications (2.02 versus 2.11 per 1000, p=0.326).

• These data argue against assertions that that care providers are less inclined to pursue medical therapeutic options for chronic adenotonsillitis in favor of potentially more lucrative surgical options in the current era.

• In contrast to the relative stability of the incidence of tonsillectomy from 1996 to 2006, we found that pediatric adenotonsillectomy incidence nearly doubled. This is likely due in large part to the recent recognition of the morbidity of obstructive sleep apnea and sleep disordered breathing.

• The present analysis demonstrates that otolaryngologists should be aware of recent recognition of the morbidity of obstructive sleep apnea and sleep disordered breathing.