

EDITORIAL

ADENOTONSILLECTOMY

Diseases of the tonsils and adenoids are among the most frequently encountered diseases in the paediatric population while adenotonsillectomy (removal of adenoids and tonsils either singly or together) is the most commonly performed paediatric surgical procedure(1). Adenotonsillectomy accounts for about 20% of all operations performed by the otolaryngologist despite decreasing frequency of the procedure from peak levels in the 1960s (2, 3).

Adenoids and tonsils are part of Waldeyer's ring, which is formed by lymphoid follicles arranged around the oropharyngeal inlet. Their role has remained incompletely understood but they are involved in processing of antigenic material which assists in the maintenance of normal immunocompetence. Most studies have, however, failed to demonstrate significant differences in immunoglobulin production in children with recurrent tonsillitis and no adverse systemic immunologic effects have been proven in children after tonsillectomy(4). Reactive lymphoid hyperplasia with resultant hypertrophy accelerates in children upto five to seven years of age, corresponding to the peak incidence of upper respiratory tract infections(5).

Celcius first authenticated the removal of tonsils in approximately 50AD, while Samuel Crowe reformed adenotonsillectomy in the early twentieth century by improving surgical techniques, addressing potential risks pre-operatively and emphasising post-operative hospitalisation(4). Adenotonsillectomy quickly evolved into one of the most common surgical procedures becoming popularised as a cure for numerous ailments. The introduction of "managed care" and emphasis on "evidence based medicine" in the 1960s and 1970s led to the development of more strict criteria for adenotonsillectomy(2,3). The main indications for adenotonsillectomy today are obstruction, recurrent infections and neoplasms.

Adenotonsillar hypertrophy is the commonest cause of sleep related breathing disorders in children and adenotonsillectomy is the commonest treatment with well documented resolution(6-9). More than 10% of preschool age children snore regularly but obstructive sleep apnea syndrome(OSAS) is less common, occurring in 3% of preschool children(10). Snoring without evidence of clinical problems resulting from obstruction is therefore not an indication for adenotonsillectomy. OSAS in the presence of adenotonsillar hypertrophy constitute an absolute indication for adenotonsillectomy(6,11). Adenotonsillar hypertrophy with resultant airway obstruction in adults has been on the increase since the advent of HIV infection.

Recurrent adenotonsillar infections remain the commonest indication for adenotonsillectomy yet this is the most controversial due to lack of standardised criteria for surgery. There is no consensus as to the number of

infections per year that would be an absolute indication for tonsillectomy as various variables like severity of infection and effect on the patient's school or work performance must be taken into consideration. It is important that the severity and frequency of adenotonsillar infections be documented by the physician before a decision for surgery is made(12). Relative indications for adenotonsillectomy are based on presumed possible benefits to the patient and they continue to be difficult to evaluate.

Suspicion of a malignancy in a unilaterally enlarged tonsil is a less controversial indication for adenotonsillectomy. It is estimated that the incidence of malignancy in a unilaterally enlarged tonsil is 4-8% (13). Since most authors do not suggest thresholds at which non-surgical treatment such as antibiotic therapy and watchful waiting may be appropriate, the decision of when to intervene surgically in adenotonsillar disease will continue to be based more on attitudes acquired during training, judgements drawn from clinical experience and philosophical beliefs than on the results of randomised controlled trials or outcome studies.

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