What are the indications for tonsillectomy in children?

EVIDENCE-BASED ANSWER

Tonsillectomy with or without adenoidectomy is minimally effective when combined with tympanostomy tube placement in preventing recurrent otitis media in the 3 years following surgery. The risks of surgery must be weighed against potential benefit. (Grade of recommendation: B, based on low-quality randomized controlled trials [RCTs]). The evidence supporting tonsillectomy for recurrence of sore throat is controversial.1 There is insufficient evidence to recommend other potential indications (Table). (Grade of recommendation: C, based on case series.)

EVIDENCE SUMMARY

Cochrane: “There is no evidence from randomized controlled trials to guide the clinician in formulating the indications for surgery in adults or children.”2 The few existing trials are complicated by differences in treatment and control groups at baseline and by differential complication rates in groups receiving tonsillectomy or adenotonsillectomy. For example, 2 RCTs showed minimal effect at 1 year and no effect at 3 years of follow-up in preventing recurrent sore throat.3,4 However, 1 of these could not be critically appraised because it was published in abstract format only.

Two other trials of tonsillectomy and adenotonsillectomy in children, both with and without tympanostomy tube placement, have shown a small, brief reduction in episodes of recurrent otitis.5,6 In the largest study,7 controls had a mean of 2.1 episodes of recurrent otitis media in the first postoperative year while those undergoing adenotonsillectomy had 1.8 episodes \(P = .25\) and those undergoing adenoidectomy had 1.4 episodes \(P < .001\). However, these benefits did not persist beyond the first year.

Several case series report no evidence of effectiveness of tonsillectomy for immunoglobulin A (IgA) nephropathy, psoriasis, or nocturnal enuresis.

RECOMMENDATIONS FROM OTHERS

The Infectious Diseases Society of America states: “Surgical removal of the tonsils may be considered for the rare patient whose symptomatic episodes [of strep pharyngitis] do not diminish in frequency over time and for whom no alternative explanation for the recurrent pharyngitis is evident. Tonsillectomy may decrease recurrences of symptomatic pharyngitis in selected patients, but only for a limited period of time.”

The American Academy of Pediatrics position is as follows: “Tonsillectomy, either alone or with adenoidectomy, has not been found effective for treatment of otitis media with effusion.” The Scottish Intercollegiate Guidelines Network (SIGN): “The following are recommended as reasonable indications for consideration of tonsillectomy in both children and adults, based on the current level of knowledge, clinical observation in the field and the results of clinical audit.” According to SIGN, patients should meet all these criteria: sore throats are caused by tonsillitis; 5 or more episodes of sore throat per year; symptoms have lasted for at least 1 year; and the episodes of sore throat “are disabling and prevent normal functioning.”

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REFERENCES


<table>
<thead>
<tr>
<th>Potential Indication</th>
<th>Evidence of Effectiveness?</th>
<th>Grade of Recommendation</th>
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<tbody>
<tr>
<td>Preventing recurrent otitis media in the 3 years following surgery</td>
<td>Yes, small effect size</td>
<td>B (RCTs, case series)</td>
</tr>
<tr>
<td>Preventing recurrent sore throat caused by tonsillitis</td>
<td>No</td>
<td>B (systematic review of flawed RCTs)</td>
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<tr>
<td>Preventing recurrent peritonsillar abscesses</td>
<td>No</td>
<td>C (case series, consensus statements)</td>
</tr>
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<td>Treating sleep apnea in children</td>
<td>No</td>
<td>C (case series)</td>
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<tr>
<td>Treating IgA nephropathy</td>
<td>No</td>
<td>C (case series)</td>
</tr>
<tr>
<td>Treating guttate psoriasis</td>
<td>No</td>
<td>C (case series)</td>
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<tr>
<td>Treating nocturnal enuresis</td>
<td>No</td>
<td>C (case series)</td>
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IgA denotes immunoglobulin A; RCTs, randomized controlled trials.