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Unilateral versus bilateral abscess tonsillectomy. Implications for current surgical practice

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Abstract

Objectives. To compare unilateral *vs* bilateral hot tonsillectomy in managing peri-tonsillar abscesses.

Methods. Literature review in Medline and other database sources, and critical analysis of data.

Results. Management options for peri-tonsillar abscesses range from intravenous antibiotics alone or needle aspiration for small collections to incision and drainage or abscess tonsillectomy for larger ones. Regarding the latter, there is no clear consensus in the literature on favouring unilateral over bilateral excision.

Conclusion. Conventional wisdom would suggest that operating on acutely inflamed tissue may increase the risk of bleeding due to engorged vessels and tissue friability. The potentially lower rate of post-operative haemorrhage in unilateral abscess tonsillectomy should be weighed against a potentially lower risk of future episodes in bilateral excisions. Furthermore, the improved efficiency of unilateral abscess tonsillectomy in terms of healthcare resource utilisation and operative time should be evaluated in the context of routinely performed interval contralateral tonsillectomies, potentially affecting operating theatre planning.

Letters to the Editor

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Dear Editor,

Peri-tonsillar abscess is the most common deep neck infection, arising either as a complication of acute tonsillitis or as a primary infection of Weber's mucous glands. With an incidence of approximately 30 in 100 000, it represents a frequent cause of emergency department admissions. Patients typically present with unilateral sore throat, trismus, odynophagia and 'hot potato' voice, and require immediate treatment to prevent serious complications (i.e. Lemierre's syndrome, extension to the para- or retro-pharyngeal space, mediastinitis or necrotising fasciitis). Management options vary widely, ranging from intravenous antibiotics alone or needle aspiration for small abscesses to incision and drainage, or more rarely, abscess tonsillectomy for larger ones, which constitute the majority of cases. In this context, the question arises as to whether unilateral or bilateral abscess tonsillectomy should be performed.[1]

Interestingly, there is no clear consensus in the literature favouring one approach over the other. Some studies suggest that unilateral abscess tonsillectomy may be associated with a lower risk of post-operative haemorrhage, whereas others advocate bilateral tonsillectomy when a unilateral peri-tonsillar abscess occurs, with the aim of reducing the risk of future episodes.

Following the 2015 update of the German infectious disease guidelines, bilateral abscess tonsillectomy for peri-tonsillar abscess has been recommended only when the contralateral tonsil meets established criteria for tonsillectomy. This recommendation triggered the conduct of large cohort studies, which demonstrated that unilateral abscess tonsillectomy is associated with shorter operative time, reduced length of hospitalisation and a marginally lower rate of post-operative haemorrhage, compared with elective cases.[1] Support for unilateral abscess tonsillectomy is further strengthened by the absence of an increased incidence of tonsillitis or abscess formation in the contralateral tonsil during follow-up.[2] Moreover, preservation of one tonsil may reduce the risk of post-tonsillectomy dysgeusia, potentially related to injury of the lingual branch of the glossopharyngeal or lingual nerve, a complication supported by evidence from meta-analyses.[3]

Fewer studies support the opposing approach, most of which rely on observations that are difficult to be objectively confirmed, such as the presence of suppuration in the contralateral tonsil when the abscess tonsillectomy is performed, or previous respective episodes of tonsillitis, without clear evidence of an increased recurrence rate.[4]

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However, conventional wisdom suggests that operating on acutely inflamed tissue may increase the risk of bleeding due to engorged vessels and tissue friability. Hence, although bilateral abscess tonsillectomy was associated with a higher, albeit not statistically significant, rate of post-tonsillectomy haemorrhage, compared to unilateral abscess tonsillectomy,[5] the lack of significance may be attributed to statistical underpower of the few studies which have specifically addressed this issue, and should therefore be interpreted with caution.

Considering that peri-tonsillar abscess represents a frequent reason for emergency department visits, and that abscess tonsillectomy is established as the primary treatment modality in some institutions, favouring unilateral over bilateral abscess tonsillectomy may bear important implications in terms of healthcare resource utilisation and operative time of an ENT emergency, especially since no increased rate of complications in the contralateral tonsil during follow-up has been reported.[2] However, in case subsequent interval contralateral tonsillectomy is routinely considered, capacity constraints on operating theatre planning should be regarded. Furthermore, the unilateral excision should be carefully documented in patient notes to avoid unnecessary future referrals due to asymmetrically appearing faucial tonsils.

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