Audit

The surgical arrest of post-tonsillectomy haemorrhage: hospital episode statistics

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Introduction: In the consent of patients for tonsillectomy, the risk of returning to theatre for control of postoperative bleeding may be determined from data provided on Hospital Episode Statistics (HES) provided by the Department of Health website.

Methods: HES data for England from 1998–2002 were used. The numbers of tonsillectomies and of surgical arrest of post-tonsillectomy haemorrhage were considered for children and adults.

Results: Of 220,497 tonsillectomies performed over the 4-year period, 1804 (0.82%) returned to theatre for control of bleeding. However, this was 3.87 times more likely in adults than children ($P < 0.0001$).

Conclusion: Adults are nearly four times more likely than children to require surgery for the arrest of post-tonsillectomy haemorrhage.

Key words: Tonsillectomy – Consent

Tonsillectomy is a commonly performed operation. After tooth extraction and insertion of grommets, it is the third most common reason a child has a general anaesthetic in the UK.¹ It is agreed practice that the surgeon obtaining consent should discuss the risks of the procedure and, in the case on tonsillectomy, this should include the risk of postoperative bleeding. However, the figures quoted are often based on hearsay rather than fact, with a figure of 1% commonly quoted. Whilst it is accepted that you should quote your own figures as the ideal, quoting national figures may also be acceptable.

The Department of Health (DoH) website (<www.doh.gov.uk>) provides information on admitted patient care delivered by NHS hospitals in England from 1989, in its Hospital Episode Statistics (HES). Private hospitals are not included, although private patients treated in NHS hospitals are. Whilst information relating to individual patient admissions cannot be accessed, questions can be

answered by summarising the collected data. The data are available in various tables, of which 'Table 21: Main Operations' shows episodes grouped by 4-character OPCS4 codes, and statistics related to them. The figures provided by HES are likely to contain errors, in that they rely on the correct coding of all operative procedures.

Patients and Methods

'Table 21: Main Operations' for the available years (1998–2002) was downloaded in Excel format. The operative (OPCS4) codes F34.1, F34.2, F34.3, F34.4, F34.8 and F34.9 relating to tonsillectomy procedures and code F36.5 relating to the surgical arrest of post-tonsillectomy bleeding were considered. Data for children (0–14 years) and adults (15–75+ years) were compared and statistically assessed with a Chi-squared test.

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Table 1 Patients requiring tonsillectomy and theatre for the arrest of post-tonsillectomy haemorrhage in England 1998–2002^a

		Age 0–14 years	Age 15–75+ years	Total
1998/1999	Tonsillectomy	41,549	25,587	67,139
	Surgical arrest of post-tonsillectomy haemorrhage	130	292	422
1999/2000	Tonsillectomy	35,897	23,218	59,117
	Surgical arrest of post-tonsillectomy haemorrhage	119	366	485
2000/2001	Tonsillectomy	26,685	19,312	46,001
	Surgical arrest of post-tonsillectomy haemorrhage	113	311	424
2001/2002	Tonsillectomy	27,446	20,803	48,321
	Surgical arrest of post-tonsillectomy haemorrhage	138	335	473
	Total tonsillectomies	131,577	88,920	220,497
	Total surgical arrest of haemorrhages	500	1304	1804
	Percentage of patients returning to theatre	0.38	1.47	0.82

Results

Between April 1998 and April 2002 a total of 220,497 tonsillectomies were performed, 1804 (0.82%) of which returned to theatre for control of postoperative bleeding. In children, 131,577 tonsillectomies were performed and 500 (0.38%) returned to theatre. In adults, 88,920 were performed and 1804 (1.47%) returned (Table. 1). Adults are, therefore, 3.87 times more likely than children to return to theatre for control of bleeding. The difference between the incidence of adults and children returning to theatre was statistically significant (Chi-squared = 771; $P < 0.0001$).

Conclusions

This paper shows that adults are nearly 4 times as likely than children to require surgery for the arrest of post-tonsillectomy haemorrhage. The reasons for this are likely to be multifactorial. Perhaps adults have suffered a more

prolonged period of recurrent tonsillitis resulting in a more scarred tonsillar bed, or perhaps they are more inclined to self-medicate with non-steroidal anti-inflammatory drugs postoperatively. Whatever the reasons, our consent should differ between adults and children on this matter.

Whilst this article gives clear, justifiable figures to give to patients at the time of consent, it also importantly highlights the valuable data that are available to all on the DoH website. Questions about diagnoses, the number of operations performed, admission method, patients' age, sex and ethnic group, to name but a few examples, can be collected relevant for the activities of any surgical specialty.

Reference

1. <http://www.doh.gov.uk/hes/free_data/index.html>.