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Editorial

Tonsillectomy – Current Practice and Audit

L K S Tan

Over the last few decades, several facets of improvement in health care delivery has made its impact on surgery in general, and otolaryngology is no exception. Mortality from adenotonsillar surgery has been reduced from 1: 10,000 – 16,000 in the 1960s to 1: 16000 – 35000 at the present[1]. Although there has been progress in all aspects of health care, improvement in anaesthetic and surgical techniques have been major contributors to improving the safety of surgery of the Waldeyer's ring.

Our current practice of routine general anaesthesia for tonsillectomy is often taken for granted despite the fact that tonsillectomy, even adenoidectomy in children, is performed with local or no anaesthesia in developing countries. Unlike surgery in other body parts, the anaesthesiologist has to "share" the airway with the otolaryngologist. In the 1960s, spontaneous ventilation in the presence of a tonsillar gag to retract the tongue heralded a higher risk of aspiration and its consequent problems, whereas routine intubation today has provided a much more controlled situation. Nevertheless, the risk of aspiration at reintubation is high in the presence of reactionary or secondary haemorrhage after tonsillar surgery, thus the importance of reducing the rates of post-tonsillectomy bleeds. Improved techniques in tonsillectomy has reduced intra-operative blood loss. "Tonsillectomy – A Bloody Mess" by Faigel HC in 1966 reflects the nature of the operation in the past, and only blood losses above 10% of the blood volume in children was used as an alert to the clinicians[2]. Some readers may remember the days of Guillotine tonsillectomy, which is still practiced in some centers today. From Guillotine, the Otolaryngology fraternity then moved on to blunt dissection of the tonsils and haemostasis of the tonsillar bed with suture "ties". The latter is an acceptable mode of practice today. However, the advent of electro-cautery (unipolar and bipolar) and its inherent haemostatic advantage, is gradually emerging as the standard of care. However, there is evidence to suggest that with increase use of electro-cautery, there is corresponding increase in post-operative pain. As the risk of blood transfusion abates, and as more efficacious analgesics are made available, the move is certainly towards decreasing all possible blood loss. In addition, the surgeon has the pleasure of operating in a "bloodless field". Laser application has not been left out for tonsillar surgery although it is difficult to justify the extra cost and time required. In addition, KTP laser has been associated with a higher incidence of secondary haemorrhage[3]. The use of various exogenous materials such as fibrin glue, bismuth subgallate, avitene, surgical and adrenaline injection has not been universally accepted to decrease the risk of post-tonsillectomy haemorrhage.

No consideration in health care today can be divorced from the issue of cost. The challenge to reduce cost to the patient and the state has led to the potential of day surgery tonsillectomy being explored and practiced in several centres all over the

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world. Day surgery has been suggested to be practical in Singapore. In many centres that serve patients from across hundreds of kilometres, it may be unsafe for patients to be dealt with as day cases. However, Singapore has the advantage of being a small city-state and also the abundance of readily accessible medical services to patients. In considering day case tonsillectomy, it is important to differentiate reactionary haemorrhage from secondary haemorrhage (> 24 hours after surgery). The low rate for reactionary haemorrhage (1% – 3%) argues partially in favour of day surgery tonsillectomy. Day surgery tonsillectomy is now common practice in adults, and is gradually being extended to children[4]. However, in our enthusiasm to curb cost it is important to audit our practice to ensure that standards of care are not compromised.

With acceptable rates of reactionary haemorrhage, there remains the challenge to reduce the rates of secondary haemorrhage in post-tonsillectomy patients. There is currently no predictor of increased risk of bleeding apart from a thorough medical history and screening PT/PTT has not been found to be useful. The role of antibiotics prophylaxis aimed at lowering the risk of secondary haemorrhage, assumed to be secondary to infection, has not been adequately addressed. In conclusion, regular audit of current complication rates for a common operation such as tonsillectomy is highly appropriate and should be done to ensure the highest standard of care.

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