Occurance of Haemorrhage after Tonsillectomy in MH Samorita Hospital and Medical College Neyamat Ullah Khan^{1*} Shameem Anwarul Hoque²

ABSTRACT

Background: Haemorrhage is the most common complication after tonsillectomy. It may requires re-admission of the patient to hospitral, most commonly for observation, but active intervention is sometimes needed. The aim of the present study was to find out the incidence of primary, reactionary and secondary haemorrhage after tonsillectomy.

Materials and methods: A prospective study was conducted at MH Samorita Hospital and Medical College, Dhaka from January 2015 to December 2020. We had selected 125 cases undergoing tonsillectomy. Tonsillectomy was done by cold steel dissection technique and bipolar diathermy haemostasis. Post operatively every patient was treated with pain killer (Tablet paracetamol and diclofenac suppository) antibiotics (Capsule amoxicillin and flucloxacillin) and hydrogen peroxide mouth wash. Postoperative follow-up was done till the tonsillar fossa healed.

Results: The incidence of primary haemorrhage was 0%, reactionary haemorrhage was 0.8% and secondary haemorrhage was 1.6%.

Conclusion: The result of our study and other researchers shows almost same. Proper case selection, adequate postoperative care and use of appropriate antibiotic will reduce the incidence of haemorrhage after tonsillectomy.

KEY WORDS

Reactionary haemorrhage; Secondary haemorrhage; Tonsillectomy.

INTRODUCTION

Tonsillectomy with and without adenoidectomy is one of the most common surgical procedures performed by otolaryngologists in the United states.¹ Recurrent tonsillitis, obstructed sleep apnoea and peritonsillar abscess are the most common indications.²

The traditional methods for removing the tonsils are the so-called 'Cold steel' techniques using metal instruments. The most common method of 'Cold steel' tonsillectomy is the dissection technique. Cold steel dissection may be combined with diathermy to aid haemostasis, but many surgeons prefer ties or swabs. The most common technique used for removing tonsils in the United States today is monopolar electrocautery, also called 'hot' tonsillectomy, but cold dissection tonsillectomy is currently the most common method of tonsillectomy in the UK.³ In the NPTA (National

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Prospective Tonsillectomy Audit, UK) the use of 'cold steel' dissection without diathermy was associated with the lowest haemorrhage rate.⁴

Primary haemorrhage is haemorrhage occurring immediately as a result of an injury or surgery. Reactionary haemorrhage is haemorrhage within 24 hours after surgery and is usually caused by dislodgement of clot after resuscitation from general anesthesia, normalization of blood pressure and vasodilatation. Reactionary haemorrhage may also result from technical failure such as slippage of ligature. Secondary haemorrhage is caused by sloughing of the wall of a vessel. It usually occurs 24 hours after surgery and is precipitated by factors such as infection, pressure necrosis or malignancy.⁵⁻⁷

The most significant immediate complication of tonsillectomy is reactionary haemorrhage. By definition this occurs up to 24 hours postoperatively, but the vast majority of reactionary haemorrhage occurs within the first eight hours. Reactionary haemorrhage after tonsillectomy is not uncommon, occurring in about 0.5-1% of operations.^{8,9}

Haemorrhage varies according to techniques used for tonsillectomy. According to NPTA, using cold steel and ties/pack technique primary and secondary haemorrhage were 0.8% and 1% respectively. Using cold steel and mono-polar diathermy the rate of primary and secondary haemorrhage were 0.5% and 2.4%, using cold steel and bipolar diathermy the rate were 0.5% and 2.3% respectively.¹⁰ None of the techniques seem to be significantly more prone to reactionary haemorrhage

than the others. In a Singaporean study, the incidence of primary and secondary haemorrhage was 0.6% and 7.1% respectively. The use of postoperative antibiotics did not significantly affect the incidence of haemorrhage.¹¹

A study reported that the incidence of primary haemorrhage was 0.4% and secondary haemorrhage was 2.8%. Routine prescription of antibiotics to prevent secondary haemorrhage is probably not useful, therefore antibiotic use be reserved to a few selected cases.¹²

Most of the studies on the incidence and management of post tonsillectomy haemorrhage come from the western countries. Our aim was to study the local scope of this complication and to assess the safety of tonsillectomies in our hospital. In this study we tried to find out the incidence of primary, reactionary and secondary haemorrhage after tonsillectomy. We have selected 125 cases undergoing tonsillectomy. Tonsillectomy was done by cold steel dissection technique and bipolar diathermy haemostasis.

Post operatively every patient was treated with pain killer (Diclofenac sodium and paracetamol) antibiotics (Amoxicillin and flucloxacillin) and hydrogen peroxide mouth wash. Postoperative follow-up was done till the tonsillar fossa healed.

To assess the incidence of primary, reactionary and secondary haemorrhage after tonsillectomy operation.

MATERIALS AND METHODS

This prospective study was performed at MH Samorita Hospital and Medical College, Dhaka during the period January 2015 to December 2020. 125 patients admitted for tonsillectomy during the study period. Patients suspected of chronic tonsillitis are evaluated properly by detailed history taking, clinical examination and relevant investigation. Cold steel dissection technique and Bipolar diathermy haemostasis under general anaesthesia. Informed consent was taken from the patients for selected tonsillectomy. Relevant data were collected in a pre-designed data collection sheet for each of the patient with chronic tonsillitis who was undergone tonsillectomy. Every patient was treated with pain killer (Diclofenac sodium and paracetamol) antibiotics (Amoxicillin and flucloxacillin) and hydrogen peroxide mouth wash. Post-operative follow up was done till the tonsillar fossa healed.

Age group	Number	Percentage
	of cases	(%)
0-10	23	18.4
11-20	43	34.4
21-30	40	32
31-40	16	12.8
41-50	03	2.4

In this table, 34.4% (43 cases) were from 11-20 age groups. Highest age of the tonsillectomy patients was 50 years and lowest age was 6 years. Mean age was 19.64 years.

Table II	Incidence	of H	laemorr	hage	(n=1	12)
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Type of Haemorrhage	Number of cases	Percentage (%)
Primary Reactionary	0	0
Secondary	2	1.6
No other complications	122	97.6

Primary Haemorrhage was 0%. Reactionary Haemorrhage was 0.8%. Secondary Haemorrhage was 1.6%.

DISCUSSION

Tonsillectomy is one of the common operations performed by an Otolaryngologist. Most significant complications are postoperative haemorrhage. Episodes of post tonsillectomy haemorrhage are unpredictable and sometimes life threatening. In this study we tried to find out the incidence of primary, reactionary and secondary haemorrhage after tonsillectomy. 'Haemorrhage 'was defined as a bleed that prolonged the patient's hospital stay, required blood transfusion, a return to the operating theatre, or in the case of 'secondary' haemorrhage readmission to hospital. Table-I shows, 34.4% (43 cases) were from 11-20 age group, 32% (40 cases) were from 21-30 age group, 18.4% (23 cases) were from 0-10 age group and 12.8% (16 cases) were from 31-40 age group. The highest age of the tonsillectomy patients was 50 years and the lowest age was 6 years. The mean age was 19.64 years.

Table II shows, the incidence of primary haemorrhage was 0%, reactionary haemorrhage was 0.8% and Secondary haemorrhage was 1.6%. According to a study, incidence of primary haemorrhage was 0.5-1% and secondary haemorrhage was 1.6%. According to another series incidence of primary haemorrhage was 0.56% and secondary haemorrhage was 16.8%.4 A study revealed that primary haemorrhage was 0.6% and secondary haemorrhage was 3.7%.7 According to a series primary and secondary haemorrhage was 0.65 and 7.1% respectively.⁹ According to a literature paper, reactionary and secondary haemorrhage was 0.45 and 2.8% respectively.¹⁰ In our series, Primary haemorrhage was nil (0%) Reactionary haemorrhage was 0.8% and Secondary haemorrhage was 1.6% which was similar to most of the studies.

LIMITATIONS

This study is carried out a few number of patients in a private medical college hospital that does not represents the whole of the country.

CONCLUSIONS

In our study, the incidence of primary haemorrhage was nil, reactionary haemorrhage was 0.8% and secondary haemorrhage was 1.6%.

RECOMMENDATIONS

Proper case selection, adequate post operative care and use of appropriate antibiotics after tonsillectomy operation will be reduce the incidence of primary, reactionary and secondary haemorrhage.

DISCLOSURE

Both the authors declared no competing interest.

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