



Incidence of post operative complications after tonsillectomy in Chittagong Medical College Hospital

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Abstract

Background: Tonsillectomy is one of the most frequently undertaken procedures in otolaryngology, represents approximately 20-40% of surgical procedures performed in this field. Post operative complications following tonsillectomy are generally rare, with post-tonsillectomy haemorrhage being one of the most common serious complication. Episodes of post tonsillectomy haemorrhage are unpredictable and sometimes life threatening.

Materials and Methods: A prospective study was conducted department of otolaryngology-Head & Neck Surgery department, Chittagong Medical College Hospital, Chattogram from January 2018 to December 2018. We are selected 211 patients undergoing tonsillectomy. Tonsillectomy was done by cold steel dissection technique and bipolar diathermy haemostasis.

Results: Maximum age group 107 (50.71%) were from 11-20 yrs. Maximum patients were male 130 (61.61%) and sex ratio of male:female 1.6:1. In this study commonest indication was recurrent tonsillitis 168 (79.62%). Complications that encountered after operation were haemorrhages both primary and secondary, 2(.94%) and 5(2.36%) respectively. Local trauma was 8 (3.79%) and local infection in tonsillar bed was 12 (5.66%) cases.

Conclusion: Haemorrhage after tonsillectomy may occur in few occasions and more common in male patients. Others complication like tonsillar bed infection & trauma to lip, tongue, palate and post pharyngeal wall may occur in significant number cases.

Keywords: Haemorrhage, Tonsillectomy.

Introduction

Tonsillectomy is one of the oldest and most common surgeries carried out by otolaryngologist. Post operative complications following tonsillectomy are generally rare, with post tonsillectomy haemorrhage being one of the most common serious complication¹.

Tonsillectomy is one of the most frequently undertaken procedures in otolaryngology, representing approximately 20-40% of surgical procedures performed in this field^{2,3}.

The previously reported risk factors for post tonsillectomy haemorrhage include sex, age,

tonsillectomy indication, surgical technique and device and the skill level of the surgeon⁴.

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 anaesthesia, 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 off the wall of a vessel. It usually occurs 7-14 days after surgery and is precipitated by factors such as infection, Pressure necrosis or malignancy⁵.

Tonsillectomy is reported usually to be a simple and uncomplicated operation⁶. Some complication are secondary to anaesthesia which include myocardial instability, laryngeal trauma, aspiration of blood or mucous.

Besides anaesthetic cause, the most common factors responsible for death following tonsillectomy is haemorrhage either primary, reactionary or secondary specially when it remains unrecognized and not treated⁷.

One of the most significant complication is post operative haemorrhage. A ten years retrospective study showed that seven of the 750 patients (.93%) required a second general Anaesthesia to control haemorrhage⁸.

Aims and Objectives

The aim and objectives are-

- 1) To find out the various post operative complications in tonsillectomy.
- 2) To find out the relation of post operative haemorrhage with age and sex.

Materials and Methods

Type of study: prospective study

Place of study: Department of otolaryngology-Head and Neck surgery, Chittagong Medical College Hospital, Chattogram.

Study period: January 2018 to December 2018.

Study Population: 211 patients admitted for tonsillectomy during the study period.

Methods of Sampling and Pre-Operative Evaluation:

Patients suspected of recurrent tonsillitis are evaluated properly by detailed history taking, demographic data, full otolaryngological symptoms, clinical and otolaryngological examination, past & family history and relevant investigation (pre operative CBC and coagulation profile).

Technique of Tonsillectomy:

Cold steel dissection technique and Bipolar diathermy haemostasis under general anaesthesia.

Data Collection:

Relevant data were collected in a pro-designed data collection sheet for each of the patient with recurrent tonsillitis, who was undergone tonsillectomy.

Operative Evaluation:

Technique of tonsillectomy and possible operative complications.

Post operative Manage:

Every patient was treated with antibiotics (sefradin/cefuroxime, flucloxacillin), pain killer (diclofenac sodium and paracetamol), antihistamin, hydrogen-peroxide/ povidine iodine (1%) mouth wash.

Follow up evaluation:

All the patients were assessed on the first, second, seventh, 14th day and till the tonsillar fossa healed following the operation as follows:

- a. History taking for post tonsillectomy bleedings
- b. Full otolaryngological examination to detect evidence of infection in the tonsillar bed and the occurrence of post tonsillectomy bleeding.

Inclusion Criteria

Patients in whom the indication for tonsillectomy were included in the study. All patients above 4 years of age were selected and there was so upper age limit.

Exclusion Criteria

Patient with no coagulation disorder, or with cardiovascular disorder, or those undergoing tonsillectomy as a part of palatoplasty for snoring and unilateral tonsillectomy for biopsy to exclude malignancy were excluded. Adenotonsillectomy or patients coming complication following tonsillectomy operation in outside of this hospital/private clinics also excluded.

Results

The age range of 211 patients was 6-56 yrs, maximum 107 (50.71%) were from 11-20 years which is shown in table 1.

Table-1: Age distribution of the cases (n=211):

Age Group	Number of Cases	Percentage (%)
0-10	16	7.58
11-20	107	50.71
21-30	60	28.43
31-40	20	9.47
41-50	4	1.89
51-60	4	1.89
Total	211	100

Out of 211 patients 130 (31.61%) were male and 81(38.38%) were female which is shown in table 2.

Table-2: Sex distribution of the study sample (n=211):

Sex	No Cases	Percentage (%)
Male	130	61.61
Female	81	38.38
Total	211	100

Among the indications of operation, Recurrent tonsillitis was highest 168 (79.62%), next to that was enlarge tonsil causing mechanical obstructive symptoms 30 (14.21%).

Table-3: Indication of Tonsillectomy (n=211)

Diagnosis	Number of patents	Percentage (%)
Recurrent tonsillitis	168	79.62
Pressure symptoms (Dysphagia/ Dyspnea)	30	14.21
CSOM, OME where tonsil was thought to be cause of disease.	11	5.21
H/O Quinsy	2	.94
Total	211	100

Complications that encountered after operation were haemorrhage both primary and secondary haemorrhage, 2(.94%) and 5(2.36%) respectively. Post operative local trauma is 8(3.79%) and local infection in tonsillar bed is 12(5.66%) which shown table 4.

Table 4: Incidence of post operative complications of tonsillectomy (n=211)

Complications	Number of patent	Percentage (%)
Primary haemorrhage	2	.94
Reactionary haemorrhage	00	00
Secondary haemorrhage	5	2.36
Local infection in tonsillar bed	12	5.66
Injury to lip, tongue, gum, post pillar of tonsil, teeth, pharynx.	8	3.79
Total		

Out of 7 cases of post operative haemorrhage, male patients were 4(57.14%) and female patients were 3(42.85%) which is shown in table 5.

Table 5: Sex distribution of patient with post operative haemorrhage (n=7)

Gender	Number of pt	Percentage (%)
Male	4	57.14%
Female	3	42.85%
Total	7	100

Discussion

Tonsillectomy is probable the most common operation performed by an otolaryngologist. One of the most significant complications are most operative haemorrhage. In this study, we tried to find out the incidence of primary, reactionary, secondary haemorrhage after tonsillectomy. In our study maximum age group 107(50.71%) were from 11-20 yrs age group followed by 60 (28.43%) were from 21-30 yrs age group. Study done by Kamal MS et al showed maximum age group within 11-20 years (50%) followed by 21-30 yrs (26.78%) which is nearer to our study⁹. Sex distribution of the study sample showed 130 (61.61%) were male and 81(38.30%) were female. A study done by Ahmed EBM, Ahmed FBM¹⁰ showed male 63% and female 37% which is nearer to our study. Most common indication of tonsillectomy was recurrent tonsillitis 168

(79.62%) which is in accordance with the findings of Joarder AH¹¹.

In our study, post operative haemorrhage was 3.30%, among them primary haemorrhage was .94% and secondary haemorrhage was 2.36%. There was no reactionary haemorrhage. The incidence of post operative haemorrhage in this study was slightly higher than the study of Grysdale WS et al¹² (2.15%) and nearly similar to study done by Kumar Pronoy¹³ (3.0%) and study done by Chowdhury AQ et al¹⁴ (3%). Study done by Qureshi S et al¹⁵ showed primary haemorrhage was 0.6% and secondary haemorrhage was 3.7% which is nearer to our study.

In our study post operative tonsillar bed infection was 12(5.66%) which is very close to the study of Rafiquzzaman M¹⁶ and Kumar Pronoy¹³ they showed 5% tonsillar bed infection. In our study, trauma to upper lip, tongue, teeth, gum, post pillar of tonsil and post pharyngeal wall was 3.79%. Study done by Chowdhury AQ et al¹⁴ and Kumar Pronoy¹³ showed injuries was 4% and 3% respectively.

In relation to sex, out of 7 cases of the post operative haemorrhage 4(57.14%) cases male and 3 cases (42.85%) were female, accordance with Author^{14, 16}.

Conclusion

From this study we can conclude that haemorrhage after tonsillectomy may occur in few occasions and it is more common in male patients. The other complications like tonsillar bed infection & trauma to lip, tongue, palate and post pharyngeal wall may occur in a significant number of cases. However the results of the present study may not be the representative of overall situation as it was carried out with a limited number of patients in a limited span of time.

Disclosure

All the authors declared no competing interest.

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