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Research Article

**A CROSS-SECTIONAL RESEARCH TO ASSESS  
HEMORRHAGE IN CHILDREN WHO EXPERIENCED THE  
PALATINE TONSILS REMOVAL THROUGH SURGERY****Hira Moughal, Huda Aslam, Bakht Noor Khurshid**  
Allied Hospital Faisalabad**Abstract:*****Objective:** The research purpose was to evaluate hemorrhage in Childs after surgical removal of palatine tonsils.****Material and methods:** The design of the research was cross-sectional and it held at Allied Hospital, Faisalabad from November 2016 to August 2017. The Tonsillectomy was conducted in one ninety-six children's along with an assessment of primary and secondary hemorrhage after surgery.****Results:** All of one hundred and ninety-six patients were 3 to 14 years of age among them seventy-seven (39%) patients were boys and one hundred and nineteen (61%) were girl's patients. The primary or critical hemorrhage cases were just four (23.53%) along with thirteen (76.47%) secondary or minor hemorrhage cases.****Conclusion:** The outcomes of our research declare that the number of minor hemorrhage cases in between three to fourteen years of children age passing through tonsillectomy is grater then the critical hemorrhage cases. Additional care is significant for control of complications.****Keywords:** Hemorrhage, Cryosurgery and Blunt Dissection.***Corresponding author:****Hira Moughal,**  
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**INTRODUCTION:**

The process of tonsils elimination by means of surgery is "Tonsillectomy". The tonsils are small organ behind the throat. The function of tonsils is to eliminate germs however several time tonsils affected by viruses [1, 3]. Internationally the process of tonsillectomy not performed by a uniform method and method selection done through surgeon according to his desire [4]. Guillotine obliteration, monopolar as well as bipolar surgery, cryosurgery, elimination by ultrasonic and laser, electrocautery, are several methods for tonsillectomy [5]. However, after developments in methodologies of operation as well as anesthesia, after surgery in the state of pain is still an important clinical issue [6]. The bleeding after surgical removal of tonsils is an important dilemma due to its periodicity and results. Expansion in a huge number of cases of hemorrhage after surgical removal of tonsils is registered [7]. Normally bleeding classified as primary (less than twenty-four hours) as well as secondary (greater than twenty-four hours). Primary or major bleeding is mostly critical as compared to secondary or minor bleeding, however minor bleeding could be hazardous as well as required heavy treatment through normal anesthesia [8]. Sameer Qureshi along with other workers in a proposed research with the objective to conclude emergencies of post tonsillectomy bleeding in children presented four percent after operation hemorrhage, among them fifteen percent major and eighty-five percent were a minor hemorrhage. Our objective to perform this research is to analyze the periodicity of major as well as minor bleeding after surgical removal of tonsils in those children who are passes through the procedure of tonsillectomy. The objective of our research is that limited research is published on this particular topic and findings of our research will attract the concentration of the surgeons toward after operation complications so that surgeon will give additional care while surgery to prevent this complication as surgery of tonsils removal is a usual otolaryngologic method.

**MATERIAL AND METHODS:**

The design of the research was cross-sectional and it held at Allied Hospital, Faisalabad from November 2016 to August 2017. All of one hundred ninety-six cases along with frequent series of tonsillitis of 6 weeks, two to three events in a year, four to five parts

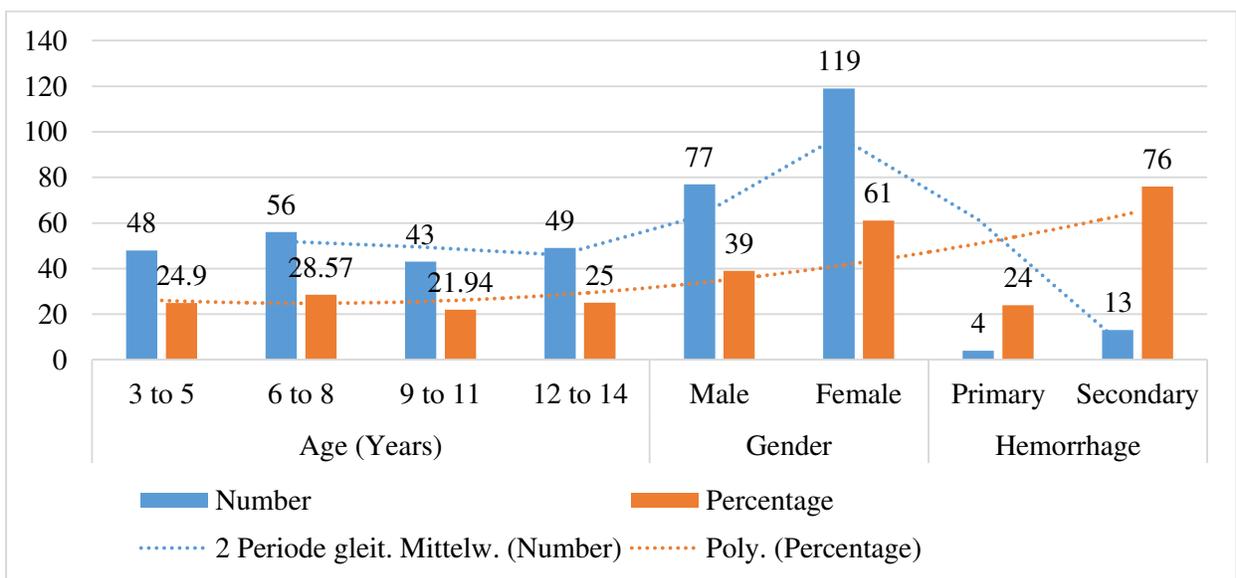
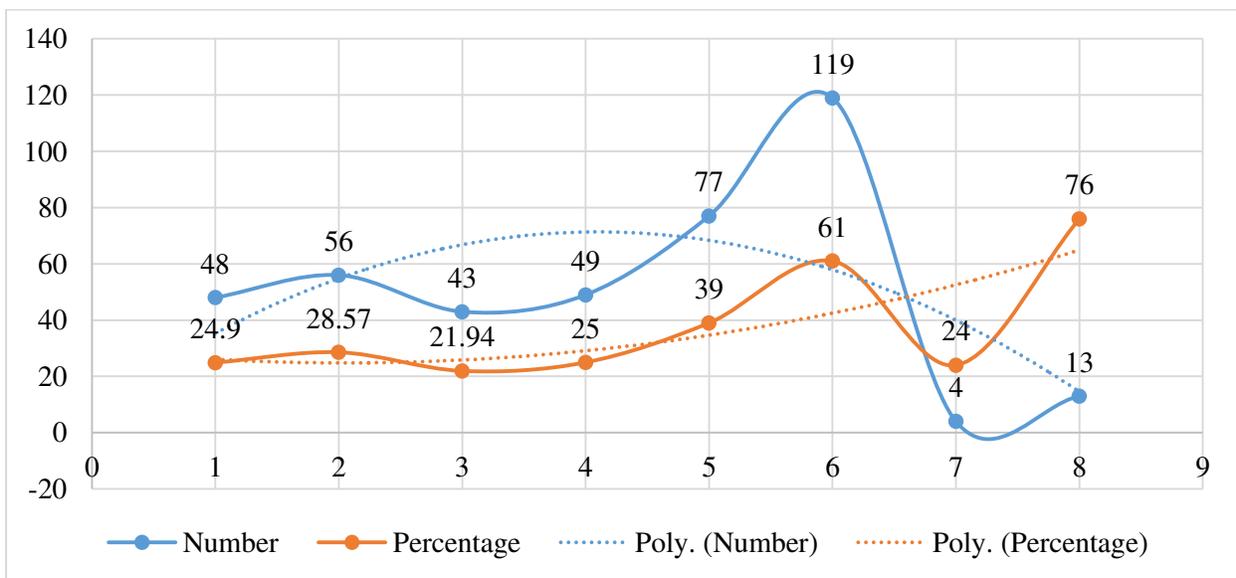
in 2 years, three to fourteen years of age of boys and girls included in the research. All cases having an indication of hemorrhage complication such as bleeding and clotting time, unsuitable cases for common anesthesia along with upper respiratory tract infection expelled from the research. Written permission from guardians of victims along with organizational review committee taken for the study. Statistical data of entire cases enrolled in concerning forms. The procedure of surgical removal of tonsils completed through usual anesthesia along with cannula insertion. The procedure of tonsillectomy performed and bleeding was stopped by electric cautery. All cases permitted to drink as well as eat for six hours after the surgery. Patients were sent back home after the third day and again call back after the sixth, a tenth and fifteenth day for recheck up in outdoor cases. Performa used for entering data of all those cases who suffered from major or minor bleeding on any of above mention days. Whole recorded data of all cases entered and analysed in SPSS software. Average and SD, as well as percentage and periodicity, computed for serialized capricious and absolute data respectively.

**RESULTS:**

All of one hundred and ninety-six patients were 3 to 14 years of age. The process of age division carried out for chosen cases. Forty-eight cases (24.9%) were in the age category of three to five years along with fifty-six cases (28.57%) in six to eight years' category. The number of cases in the group of nine to eleven and twelve to fourteen year was forty-three (21.94%) and forty-nine (25%) cases respectively. Total of one hundred and ninety-six cases, seventy-seven (39%) patients were boys and one hundred and nineteen (61%) were girl's patients. In one hundred and ninety-six cases, the total hemorrhage cases were just seventeen (8.67%) and among them, critical hemorrhage cases were four (23.53%) along with thirteen (76.47%) minor hemorrhage cases. Categorization of cases in term of bleeding was carried out and critical bleeding was diagnosed in two cases (50%) along with three (23.8%) minor hemorrhage cases in category of three to five years of age, subsequently one (25%) and five (38.46%) cases in six to eight-year category along with one (25%) and four (30.77%) cases in nine to eleven year of age group (Table – I).

**Table – I:** Age, Gender and Hemorrhage Distribution

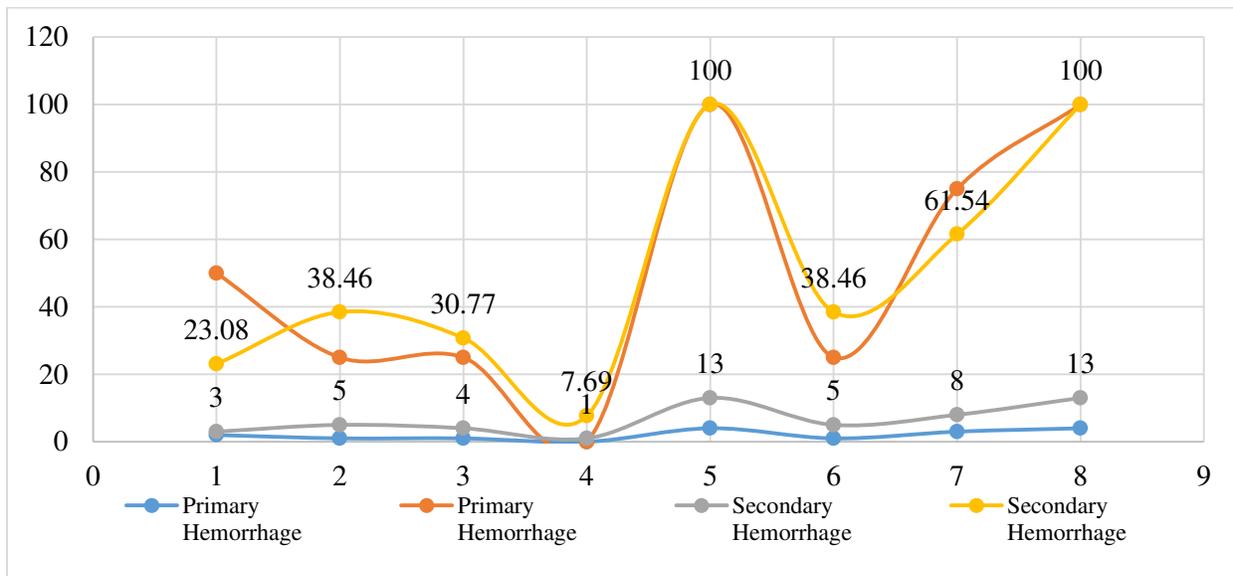
Details		Number	Percentage
Age (Years)	3 to 5	48	24.9
	6 to 8	56	28.57
	9 to 11	43	21.94
	12 to 14	49	25
Gender	Male	77	39
	Female	119	61
Hemorrhage	Primary	4	24
	Secondary	13	76

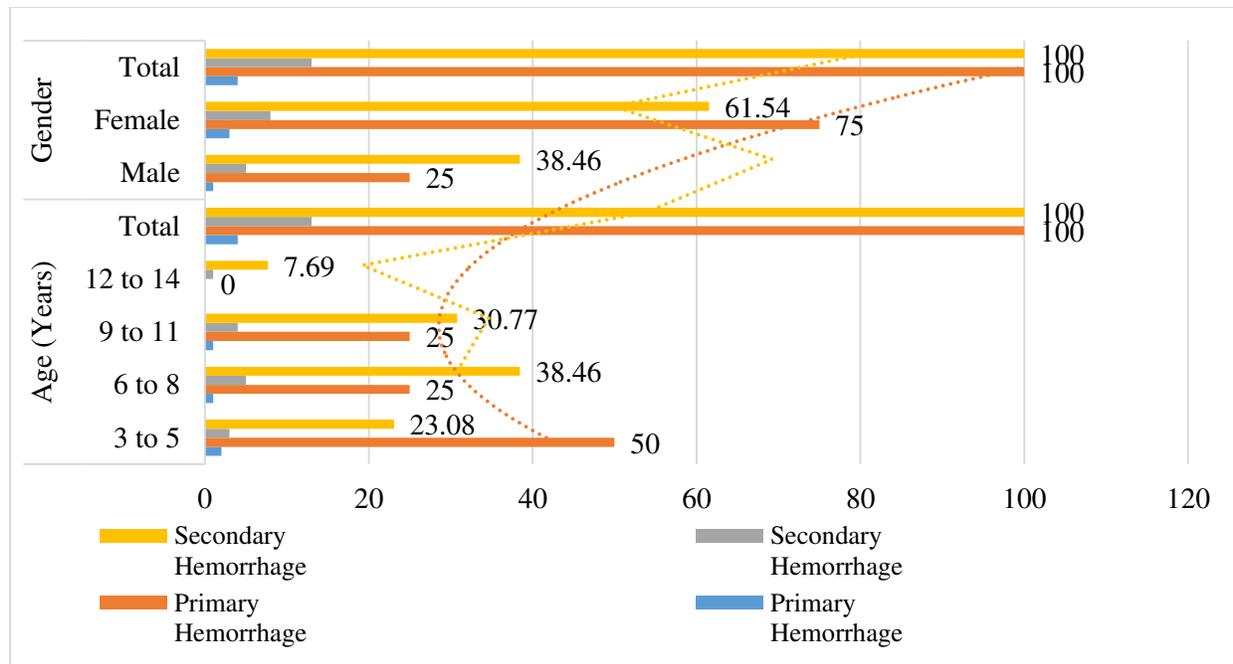


Just single case (25%) of male was diagnoses as major bleeding along with five (38.46%) minor bleeding male cases. Whereas the numbers of female affected with major and minor bleeding were three (75%) and eight (61.54%) cases respectively (Table – II).

**Table – II:** Stratification of Age and Gender

Details		Primary Hemorrhage		Secondary Hemorrhage	
		Number	Percentage	Number	Percentage
Age (Years)	3 to 5	2	50	3	23.08
	6 to 8	1	25	5	38.46
	9 to 11	1	25	4	30.77
	12 to 14	0	0	1	7.69
	Total	4	100	13	100
Gender	Male	1	25	5	38.46
	Female	3	75	8	61.54
	Total	4	100	13	100





### DISCUSSION:

The surgical removal of palatine tonsils is certainly the general most procedure conducted through an ENT specialist. Bleeding after the procedure is most critical dilemma [9, 10]. Post procedure bleeding is surprising and could be very dangerous in some cases [11]. The objective of our research is that limited research published on this particular topic and findings of our research will attract the concentration of the surgeons toward after operation complications so that surgeon will give additional care while surgery to prevent this complication. The finding of our research reveals that Forty-eight cases (24.9%) were in the age category of three to five years along with fifty-six cases (28.57%) in six to eight years' category. The number of cases in group of nine to eleven and twelve to fourteen year was forty-three (21.94%) and forty-nine (25%) cases respectively, Average and SD was computed as three to fourteen years, (39.29% & 60.71%) were boys and girl's cases respectively, the total hemorrhage cases were just seventeen and among them critical hemorrhage cases were four along with thirteen minor hemorrhage cases.

The results of our research are in adjustment with Qureshi et al who registered fifteen percent of the cases with primary hemorrhage/critical bleeding as well as eighty-five percent with minor bleeding/secondary hemorrhage, whereas results concerning periodicity of after procedure hemorrhage opposing Qureshi et al study findings who presented just four cases who developed after procedure

hemorrhage however this repetition is greater in our research which is seventeen (8.67%) out of one hundred and ninety-six cases [8].

Some previously held studies presented the greater percentage of minor hemorrhage. Mitchell along with Benson presented that sixteen percent of cases had developed secondary hemorrhage when follow up checkup carried out after two weeks of surgery [12]. Raut et al presented (16.9%) minor bleeding rate in two-hundred cases during assessment after fifteen to seventeen days of tonsils surgical removal procedure [13]. Blogmren et al presented (32.8%) of children as well as adolescent's public had developed minor bleeding after tonsil removal operation [14]. After tonsils removal procedure hemorrhage and PTB rate of (5.1% & 6.75%) respectively presented by notable researchers in children cases. Blakely conducted literature-based research in which he declared that hemorrhage rate of just five percent is common after surgical removal of tonsils [15]. One additional research carried out by D Agostino et al on thirty-three hundred and six cases who are passing through selective adeno tonsillectomy through five experienced surgeons along with variant surgical methodologies, they noted late after procedure bleeding rate of (1.78%) and in entire cases, bleeding began at home [16].

The research which is mentioned previously are comparably smaller rate of minor hemorrhage than ours, however, this variation is because of the cause that they computed the periodicity of minor

hemorrhage on entire cases rather we computed the periodicity among all after surgery hemorrhage cases i.e. thirteen (76.47%) patients in all of seventeen (8.67%) patients who suffered from minor hemorrhage in all of one hundred and ninety-six cases of research.

The similar method of calculating the periodicity of oppression adopted in research carried out by Qureshi along with workers and our results are in adjustment with their research. However, the results of these research just like our research presented that the ratio of major hemorrhage was much less to guide period of stay. The huge differences of bleeding rates in various research were certainly because of not adopting the standardized criteria for usage of definition. Despite entire research along with us acknowledged adenotonsillectomy secure like a day case operation of the victim that had comprisal criteria for DCT.

### CONCLUSION:

The outcomes of our research declare that the number of minor hemorrhage cases in between three to fourteen years of children age passing through tonsillectomy is grater then the critical hemorrhage cases. Additional care is significant for control of complications.

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