

COMPLICATIONS OF ADENOTONSILLECTOMY: OUR EXPERIENCE IN A PRIVATE HOSPITAL IN PORT HARCOURT NIGERIA.

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ABSTRACT

BACKGROUND:

Adenotonsillectomy is one of the commonly performed paediatric otolaryngology surgical procedures Worldwide. As with all surgical intervention, it is associated with some potential complications in the hands of inexperienced otolaryngologists. Complications can be life threatening in some cases especially when the patient is inadequately prepared for the procedure and has co-morbidities such as sickle cell anaemia, ongoing infections and bleeding disorders.

AIM:

This study is to establish the complications of adenotonsillectomy as seen in a private hospital setting in Port Harcourt. It will also evaluate the outcome of management of complications and its attendant challenges.

PATIENTS AND METHODS:

It was a prospective study of all children who had adenotonsillectomy in Kinx Medical Consultant clinic which is an Ear, Nose and Throat specialist clinic in Port Harcourt, Nigeria within the period of January 2012 and June 2015. The adenotonsillectomies were done by an experienced otolaryngologist assisted by a senior registrar in the department of Ear Nose and Throat surgery department of University of Port Harcourt Teaching Hospital (UPTH). General anaesthesia was administered by a consultant anaesthetist via endotracheal intubation with complete paralysis. Patients' data were documented in a proforma and were analyzed for age, gender, indication for surgery, complications, management of complications and its outcome. The data were entered into SPSS version 20 computer software and analyzed descriptively.

RESULTS:

A total of 65 patients had adenotonsillectomy out of a total number of 128 surgeries carried out during the period of study, giving a prevalence of 50.78%.

There were 30 males and 35 females giving Male to Female ratio of 1:1.1. The age range was 1-10 years with mean of (2.5 ± 1.4) years. The age range 2-4 years has the highest number of complications 8 (12.31%). The commonest complication encountered was postoperative pain 15 (27.08%) followed by post operative fever 10 (15.38%). All the complications were managed conservatively with the use of adequate analgesics, antibiotics and intravenous fluids. There was no life threatening complication seen in our series. The outcome of surgeries for all patients was satisfactory.

CONCLUSION:

All complications were successfully managed conservatively with good outcome. Parents and caregivers should not be scared of adenotonsillectomy procedure when their children or wards are booked by an experienced otolaryngologist in a good centre.

KEY WORDS: *Complications, adenotonsillectomy, otolaryngologist, fever, post-operative pain.*

INTRODUCTION

Adenotonsillectomy is one of the commonly performed paediatric otolaryngology surgical procedures worldwide¹. It involves the removal of both the tonsils and the adenoid which are parts of the lymphoid tissues making up the Waldeyer's ring in the pharynx. The procedure involves two distinct surgeries which are usually done as a combined

procedure depending on the indications. It is associated with a host of potential surgical and anaesthetic complications which can be life threatening². The most common being haemorrhage, occurring in 2 - 4% of all patients^{3,4}. Preoperative evaluations of all patients are usually carried out either to eliminate potential complications or reduce them to the barest

minimum⁵. There should be high index of suspicion in patient at risk which includes history of bleeding diathesis or excessive bleeding during previous surgeries⁵. Physical examination may provide clues like petechiae or purpura which are signs of platelet dysfunction⁵.

Obviously, expected sequelae of the procedure are pain, vomiting and dehydration which typically last between 2-10 days following surgery. It is generally accepted that some patients will require readmission into the hospital for the control of pain and management of consequent dehydration from poor or inadequate oral intake. Other complications may include post-operative fever and airway obstruction. Occurrence of complications is dependent on technique of the procedure, skill of the surgeon and the anaesthetist, patient selection, indications for surgery and presence of comorbidities⁶⁻¹¹.

The aim of this paper is to establish the complications of adenotonsillectomy as seen in a private hospital setting in Port Harcourt Nigeria. It will also evaluate the outcome of management of complications and its attendant challenges.

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RESULTS

A total of 65 patients had adenotonsillectomy out of a total number of 128 surgeries carried out during the period of study, giving a prevalence of 50.78%.

There were 30 males and 35 females giving Male to Female ratio of 1: 1.1. The age range was 1-10 years with mean of (2.5 ± 1.4) years. The age range 2-4 years had the highest number of complications (12.31%), as shown in table 1. The commonest indication for surgery was obstructive sleep apnoea (figure 1). The commonest complication encountered was post-operative pain (27.08%) followed by post operative fever (15.38%) as shown in table 2. All the complications were managed conservatively with the use of adequate analgesics, antibiotics and intravenous fluids (figure 2). There was no life threatening complication seen in our series. The outcome of surgeries for all patients was satisfactory.

Table 1: AGE RANGE COMPLICATIONS FOLLOWING ADENOTONSILLECTOMY

Age range (years)	Frequency of patients	percentage	Frequency of complications	Percentage
<2	12	18.5	7	58.3
2-4	28	43.1	8	28.6
5-7	20	30.8	7	35.0
8-10	5	7.7	5	100.0
Total	65	100	27	41.5

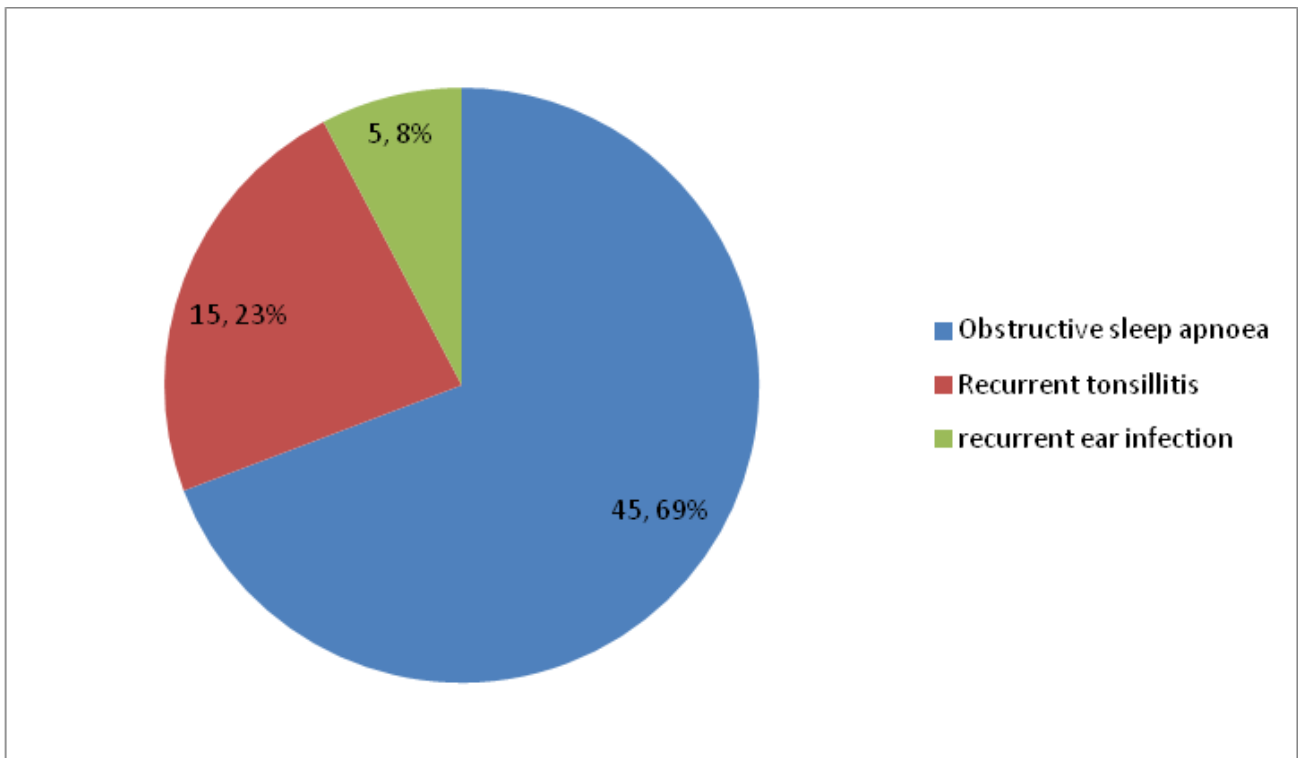


FIGURE 1: INDICATIONS FOR ADENOTONSILLECTOMY

TABLE 2: TYPES OF COMPLICATION FOLLOWING ADENOTONSILLECTOMY

Types of complication	Frequency	Percentage
Post operative pain	15	55.6
Post operative fever	10	37.0
Reactionary hemorrhages	1	3.7
Primary hemorrhage	1	3.7
Total	27	100.0

MANAGEMENT OF COMPLICATIONS

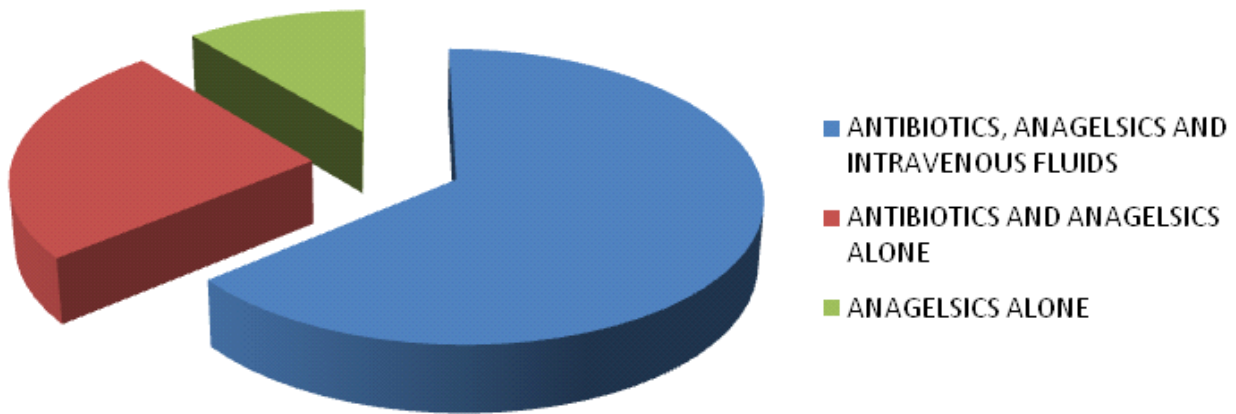


FIGURE 2: MANAGEMENT OF COMPLICATIONS

DISCUSSION

This study has shown that the age range 8-10 years had the highest proportion of complication (100%). This is probably due to the increased neurovasculature in the tonsillar bed of older children compared with the younger ones and also most of them had recurrent tonsillitis as their indication as compared with the younger age with obstructive sleep apnoea as their main indication. This finding is similar to the study done in Virginia,¹¹ but contrary to the findings in New York with proportion of peak age complication at 2 years¹². The rate of complication in this study was 41.5%. This is high when compared with the study done by Nicklaus et al (9%),¹³ and Richmond et al (3.2%)¹⁴. The commonest complication in this study was post-operative pain (55.6%), followed by post-operative fever (37%). This is probably due to the dissection and curettage method used in this series which is known to cause more tissue inflammation. This was similar with the findings in the study done in the United States of America, with pains, fever being the commonest². Haemorrhage was the least commonest complication (7.4%), this was contrary to the findings by Kendrick and Gibbin,¹⁵ with

haemorrhage the commonest complication, while post-operative fever and pains were among the least.

The complications were all managed conservatively with antibiotics, analgesics and intravenous fluids. This shows that there were no severe or life threatening complications encountered in this series, thus suggesting that it is a relatively safe procedure in the hands of the experts.

CONCLUSION

The complications we encountered in our series were not life threatening. All complications were successfully managed conservatively with good outcome. Parents and caregivers should not be scared of adenotonsillectomy procedure especially when the patients are booked by an experienced otolaryngologist in a good centre.

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