

## Day Case Adenotonsillectomy: Experience of Two Private Clinics in Nigeria

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### Abstract

**Background:** adenoidectomy and tonsillectomy are among the common surgeries performed in children in otorhinolaryngological practice. It was the aim of this study to evaluate the post operative morbidity in patients undergoing day-case adenoidectomy/tonsillectomy or adenotonsillectomy.

**Methodology:** All paediatric cases requiring adenoidectomy, tonsillectomy or both who presented at HANSA clinics Enugu (January 1990 to June 2004) and GENIKS specialist clinics Ibadan (January 2000 to June 2004) were counseled for day case surgery. The inclusion criteria were: Patients certified fit for surgery-ASA grade I or II for general Anaesthesia and had no intercurrent CVS disease or bleeding diathesis among others.

**Results:** A total number of 144 patients requiring adenoidectomy, Tonsillectomy or both were seen at the study centers with only sixty six (45.8%) meeting the inclusion criteria. Adenoidectomy constituted 47% of the surgeries with over 80 of the patient age less than 7 years. Postoperative haemorrhage was noted in 3 (4.5%) of the patient. The other complications were non-persistent vomiting 13 (19.7%), low grade fever 5 (7.6%) and pain at time of discharge 23 (34.8%). There were no fatalities.

**Conclusion:** The complication rates were low. Day-case Adenoidectomy/tonsillectomy or adenotonsillectomy is safe and the presence or closeness of the family members contributed greatly to patients' post recovery as this had a soothing/calming effect on the patient/s.

**Key words:** Day-case, Adenoidectomy, Tonsillectomy, Nigeria.

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### Introduction

Adenoidectomy and tonsillectomy are among the most common surgeries performed in children in Otorhinolaryngological practice.<sup>1</sup> Though simple procedures, preoperative or postoperative haemorrhage which incidence ranges from 2% to 7% is a concern.<sup>1,2</sup> It has thus been an age long practice to perform

adenoidectomy/Tonsillectomy or adenotonsillectomy in-patient procedures. This trend however appears to be changing as Adenoidectomy and tonsillectomy have been identified as procedures that can be performed as day case given certain medical and social criteria.<sup>3,4</sup>

The concept of day case surgery started in the immediate post world war II period and enjoys tremendous popularity 50 years especially in the developed countries.<sup>5</sup> It has thus been estimated that in a few year time half of the elective surgery in Britain will be on day case basis.<sup>5</sup> This is even more so when day case surgery is viewed as a way of improving the efficient use of the National Health Services (NHS) resources.<sup>6</sup> Opinions are varied as to the level of parental acceptance and safety of adenoidectomy/tonsillectomy as day case procedures.<sup>7-9</sup>

The authors are unaware of the practice of day case adenoidectomy/tonsillectomy in any tertiary health institution in Nigeria. The only literature presently on this subject is from a private Otolaryngology specialist hospital in Jos Nigeria.<sup>10</sup> It is thus the aim of this communication to highlight the experience of two private Otorhinolaryngology clinics on this subject in our environment

### Patients and Methods

All paediatric cases requiring adenoidectomy, tonsillectomy or both who presented at HANSA clinics Enugu (January 2000 to June 2004) and GENIKS Specialist Clinics Ibadan (January 2000 to June 2004) were counseled for day case surgery. The inclusion criteria were patients certified fit for surgery-ASA I or II for general anaesthesia and had no intercurrent CVS diseases and or bleeding diathesis. Social factors that had to be fulfilled include presence of two responsible adults at home, easy means of transportation and access to telephone/pager. The patient's residence must be within a short reachable area distance. Informed written consent was obtained from the parent or the guardians.

The pre-operative work included: full blood count, clothing profile, Haemoglobin genotype, electrolyte, urea & creatinine, Chest X-ray, x ray soft tissue neck and Electrocardiogram.

A total of 66 patients met the inclusion criteria. The consultant performed all the surgeries under endotracheal general anaesthesia in the mornings. Clean curettage for adenoidectomy patients and or blunt dissection of the tonsil without leaving adenoid/tonsillar tissue tags was ensured. Meticulous of attention was directed at securing homeostasis either by gauze pressure or ligation of bleeding vessels.

Patients were monitored in post operative recovery room for a minimum of 6 hours with the relatives present. Prophylactic antibiotics and oral analgesics were administered from immediate post-surgery following complete recovery from anaesthesia to 5<sup>th</sup> post operative day. The parameters monitored and recorded were signs of bleeding, vomiting. Temperature, pulse and analgesia administered.

Patient's parental views and satisfaction were asked about and response noted especially with regards to disruption of routine activities for parents and children and control of post operative pain.

### Discharge Criteria

The patients is adjudged fit for discharge on correct orientation and meeting the following criteria: Stable vital signs for at least an hour, adequate pain control with analgesics, oral diets (cold ice-cream/drink) commenced without persistent nausea and vomiting as well as no evidence of excessive swallowing or abnormal distention.

### Follow up Protocol

Following discharge the patient's guardian/ parents was/were instructed to observe child closely at home for bleeding, excessive swallowing, cough difficulty in breathing and for pyrexia. Patients were reviewed five days later and thereafter if necessary. This complemented by regular telephone contracts.

### Results

A total number of 144 patients requiring Adenoidectomy, tonsillectomy or both were seen at study centers. However only six-six patient (45.8%) consisting of 45 (68.2%) males and 21 (31.8%) females (M:F 2:1) met the inclusion criteria. They had the mean age of 4.8 years (range 4 months -15 years).

Of these Adenoidectomy, Tonsillectomy and adenotonsillectomy constituted 31 (47%), 15 (22.7%) and 20 (30.3%) respectively (Table I). Over 80% of the patients were aged less than 7 years (table II)

**Table I: Age & Sex distribution by type of surgery**

Age range (yrs)	Number of patients						Total (%)
	Tonsillectomy		Adenoidectomy		adenotonsillectomy		
	Male	Female	Male	Female	Male	Female	
0 – 3	-	-	19	7	5	-	31 (47%)
3 – 6	1	2	3	2	8	4	20 (30.3%)
6 – 9	-	1	-	-	-	1	2 (3.0%)
9 – 12	2	-	-	-	1	1	4 (6.1%)
12-15	5	4	-	-	-	-	9 (13.6%)
Total	8	7	22	9	14	6	66 (100%)

**Table II: Age distribution with respect to sex of the patients.**

Age group (Yrs)	Male	Female	Total (%)
0 – 3	24	7	31 (47%)
4 – 6	12	8	20 (30.3%)
7-9	-	2	2 (3.0%)
10-12	3	1	4 (6.1%)
13-15	5	4	9 (13.6%)
Total	45	21	66 (100%)

### Post-preoperative complications

Reactionary haemorrhage was noted in 3 (4.5%) of the patients. All three had Adenoidectomy alone and occurred within the first two hours post operative only one required the insertion of Foley's catheter as a post nasal pack which was removed same day as patient became unduly distressed as a result of its presence. Bleeding did not reoccur.

The other complications were non-persistent vomiting 13(19.7%), low grade fever 5(7.6%) and pain at time of discharge 23 (34.8%). Over 90% of the patients on recovering from anaesthesia and noting the presence of their parents/guardian became calm.

On parental views and satisfaction 63 (95.5%) preferred spending their first night post operative at home with their ward while 51(77.3%) were satisfied with the level of pain relief achieved with the self-administered simple oral analgesics.

## Discussion

Most of the development countries of the world undertake day case tonsillectomy where it has been recognized as a safe alternative to over night admission with minimal and acceptable range of complication. While day-case adenotonsillectomy is common in the US and Canada,<sup>3,11</sup> it has remained controversial in the UK.<sup>4</sup> Reactionary haemorrhage with its likely fatal complication<sup>11</sup> as well as inadequate pain control<sup>6</sup> are the main argument against day-case surgery. In addition to this parental refusal or not meeting the inclusion criteria are other factors for non-practice in some areas. Though only a report<sup>10</sup> on this subject has come from our environment it has been in practice since the early nineties

Reactionary haemorrhage has been noted as the most common surgical complication of Adenoidectomy/tonsillectomy.<sup>12</sup> the 4.5 percent for reactionary haemorrhage in this study is in consonance with Somefun et al's finding but slightly at variance with the report in literature where values as 1.53<sup>11</sup>, 2.62<sup>13</sup> have been noted this may be due to our small study population. This is reasonable low. The reason for this may be the comprehensive preoperatively coagulation screening, meticulous surgical techniques at securing haemostasis intra operatively and post operative antibiotic coverage, which we adhered to. This is in support of Handler et al's work. However parents are made aware of the possibility of the risk of postoperative bleed and urged to have in place facility to return their ward quickly to the clinics.

Vomiting is usually another source of worry post operatively and values may range from 41.07% to 73%<sup>11</sup>

indeed in the study by Kanerva et al<sup>14</sup> vomiting was the most frequent complication. None of their patients had reactionary haemorrhage as a complication. It has been stated that pain, swallowed blood and use of opiates seem to contribute to its symptom.<sup>11</sup> in our practice we have found the use of non opiates non anti-inflammatory analgesics valuable. The low rate in this study may have been partly due to this. No disturbing experience from our study.

Though pain and febrile episodes in the immediate post operative period has been cited s reasons for unplanned overnight admission<sup>15</sup> we did not find them clinically significant. The pyrexia was low grade and the temperate were always normal before the time of discharge. The closeness of the family members contributed gravely to patient/s post recovery as this had a soothing/calming effect on the patient/s.

We have noted rewarding benefits in performing these surgeries in the morning. It allows enough time for patient's full recovery from anaesthesia and for re-evaluation of the patient before discharge. Apart from the obvious benefits to the patients and their parents in terms of minimal disruption of their activities, day care surgery is highly cost effective to the concerned organization.

Day case Adenoidectomy/tonsillectomy is feasible but the peculiarities of our environment in terms of social and support services may militate against its practice on a wider scale. It is thus advised that cases should be treated on their own based on tested protocol.

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