

Daycare Tonsillectomy: A Safe Outpatient Procedure. Hospital Sultanah Bahiyah, Alor Setar Malaysia Experience.

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SUMMARY

Objective: We present our experience with daycare tonsillectomy and evaluate patient satisfaction and the post operative complication rate.

Methods: A prospective audit review of 38 patients from March 2009 till May 2010 was conducted in our ambulatory care center.

Results: There were 38 patients involved in this review. All patients were satisfied with our Ambulatory care services. No admission was reported after daycare tonsillectomy.

Conclusion: Daycare tonsillectomy with or without adenoidectomy is safe. It can reduce the waiting time and also bed occupancy thus cost effective. Proper selection of patient is very important.

KEY WORDS:

Ambulatory care centre, Tonsillectomy, Safe, Patient satisfaction

INTRODUCTION

Tonsillectomy is usually done as in patient procedures but now many surgeons prefer daycare tonsillectomy. Daycare tonsillectomy has been performed safely for many years in many countries world wide, but not many centers in Malaysia are practicing this. The first study describing tonsillectomy as a day stay procedure in adults was published in 1968¹.

The important goal of a day care surgery is to avoid unnecessary hospitalization, while providing the patient with the same quality of treatment and personal satisfaction as is given to in patient.

Hospital Sultanah Bahiyah(HSB) is a new hospital for Kedah state to replace our old hospital ie. Hospital Alor Star (HAS). HSB is about 6km away from HAS.

The Ambulatory Care Center (ACC) for HSB started its operation in HAS using the facilities available to accommodate all day care cases from March 2009 since the facilities and equipments are still in good condition.

The aims of the ACC are to improve health care services, shorten the waiting time for patients to get appropriate medical services and do procedures without compromising patient safety.

MATERIALS AND METHODS

A prospective audit of the tonsillectomy procedures in our ACC from March 2009 until May 2010 was performed. The aim of this paper was to assess the safety of our tonsillectomy in ACC and patients satisfaction and their understanding of ACC.

The eligibility for the daycare is considered for all patients when tonsillectomy is indicated when attending otorhinolaryngology (ORL) clinic. The indication for tonsillectomy in our ACC was recurrent tonsillitis. Both patient and social criteria are considered for the surgery. Patient criteria are either anaesthetic or surgical. Unstable home environment and transportation difficulties are the main social contraindications. The criteria for ACC are as in Table I.

Patients' history, general physical and head and neck examination were done. According to current recommendations, blood analysis is not performed. Medical history is relied on to exclude hemostatic problems in otherwise healthy patients. Complete information about the location of the ACC and its regulation were explained to patients before the operating day. They are referred to the anesthetics clinic prior to surgery.

Patients must report to the ACC admission desk in the morning of the surgery day with the accompanying person who will look after them in the postoperative period. All tonsillectomy in ACC was done by specialists or residents who have been credentialed to do tonsillectomy via blunt dissection technique. Hemostasis was achieved predominantly with diathermy and very occasionally by the use of ligatures.

Post operative observation in ACC lasts till discharge criteria are met (Table II).

Patients were discharged if no complication was observed after a minimum period of 3 hours, bleeding and pain must be under control, patient must be fully awake and able to take orally. Any patients who did not reached the discharge criteria will be converted to in-patient admission.

Questionnaire's were given to patients or guardians upon discharge and to be returned on follow up review (Table III). The first follow up visit was on the 7th post-operative day followed by 2 weeks later to review the surgical outcome. Any complications or hemorrhagic events will be recorded by

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Table I: The criteria for tonsillectomy in ACC Hospital Sultanah Bahiyah, Alor Setar, Kedah.

KRITERIA PESAKIT UNTUK RAWATAN PEMBEDAHAN HARIAN (ACC) ORL DEPARTMENT HOSPITAL SULTANAH BAHYIAH ALOR SETAR		
	Ya	Tidak
1. Umur antara 4 tahun – 65 tahun 2. Tahap kefahaman pesakit dan waris yang memuaskan 3. Kemudahan perhubungan telefon yang memuaskan 4. Kemudahan kenderaan/pengangkutan yang memuaskan 5. Jarak tempat tinggal tidak lebih 20 km dari hospital atau dapat sampai ke hospital dalam masa kurang dari 30 minit 6. Ada waris yang mengiringi pesakit 7. Tiada faktor comorbid :- <ul style="list-style-type: none"> • Kencing manis / Darah tinggi yang tidak terkawal • Morbid Obesiti : BMI > 40 • Ischemic Heart Disease/Heart failure • COAD/Asthma • Moderate/Severe OSA : AHI >30 8. Kesesuaian pembedahan:- <ul style="list-style-type: none"> • Tonsillectomy adenoidectomy • Myringotomy and Grommet • Myringoplasty • Turbinoplasty • Nasal Bone Reduction • ELMS • DL Scope & Biopsy • Excision Biopsy 		

Table II: Discharge Checklist from ACC.

DISCHARGE CHECKLIST ACC, ORL department, Hospital Sultanah Bahiyah, Alor Setar, Kedah		
	Yes	No
1. Vital signs:- <ul style="list-style-type: none"> • Afebrile • Normal Blood Pressure • Normal Pulse Rate • Normal Respiratory Rate • Pain Score less than 3 2. Fully Conscious 3. Absence of Surgical Complications Bleeding / Hematoma Severe vomiting Vertigo Others 4. Taking Orally 5. Able to walk / ambulate 6. Passed urine 7. IV line removed 8. Post-operative instructions 9. STO date given 10. Follow up date given 11. Medication 12. Discharged home with someone responsible. 13. Has been reviewed by anaesthetist		

Table III: Questionnaire given to patients

**KAJIAN KEPUJASAN PELANGGAN UNTUK PEMBEDAHAN HARIAN (ACC)
JABATAN ORL, HOSPITAL SULTANAH BAHYIAH ALOR SETAR**

1) Adakah anda bersetuju pembedahan untuk kes-kes terpilih boleh dijalankan di Hospital Alor Setar (Hospital Sultanah Bahiyah sambungan) sebagai pembedahan harian?

Setuju Tidak setuju

Jika tidak bersetuju, sila beri alasan anda

2) Adakah pembedahan di Hospital Alor Setar (Hospital Sultanah Bahiyah sambungan) memudahkan dari aspek:

	Sangat memuaskan	Memuaskan	Kurang memuaskan
a) pemberian temujanji	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) pemeriksaan/pengambilan darah	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) keizinan pembedahan /arahan kemasukan ke wad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) pendaftaran pada hari pembedahan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) kemasukan ke wad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) keselesaan di wad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) pemerhatian/pemeriksaan di wad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h) penerangan sebelum balik	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) pengambilan ubat-ubatan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) pembayaran bil	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(UNTUK PESAKIT YANG MENJALANI PEMBEDAHAN ADENOTONSILLECTOMY SAHAJA)

1. Adakah anda selesa untuk pulang ke rumah pada hari yang sama selepas pembedahan?
Jika tidak, beri alasan anda?

Ya Tidak

2. Adakah ubat-ubatan penahan sakit yang diberikan dapat mengurangkan kesakitan?
Jika tidak, beri alasan anda?

3. Adakah anda mengalami pendarahan semasa dirumah/selepas pulang ke rumah?
Jika ya, apakah yang anda lakukan?

4. Bolehkah anda makan/minum/menjalankan aktiviti asas selepas pulang ke rumah?
Jika tidak, beri alasan anda?

5. Secara keseluruhan adakah anda berpuas hati dengan rawatan yang diberikan?
Jika tidak, sila beri cadangan?

6. Jika diberi pilihan, adakah anda memilih untuk tinggal di wad selama sekurang-kurangnya 24
atau lebih selepas pembedahan tonsil anda? (berbanding dihantar pulang)
Jika ya, kenapa

then. This audit is purely descriptive, no attempt has been made to compare inpatient and day care procedures.

RESULTS

There were 38 responders and the all questionnaires received were analyzed. All patients were satisfied with the ACC except for one (n=37). Patient satisfactions were categorized into appointment date, examination, instruction prior to admission, registration, admission to the ward, condition of the ward, observation in the ward, instruction before discharge, medication prescribed and payment. One respondent was not satisfied with the registration and the condition of the ward.

34 patients (89.2%) agree that minor surgery can be done in ACC, 1 patient (2.7%) disagreed and 3 patients (7.9%) did not answer the question. 33 patients (87%) agreed to be discharge on the same day however 5 patients disagreed. The reasons given were fear of bleeding in 3 patients and weakness/lethargy post operatively in 2 patients. (figure 1)

No admission was recorded after tonsillectomy from ACC. Hemorrhage either primary or secondary was not reported. Oral intake was affected in 12 patients (32%). It was secondary to pain in 7 patients, 2 patients had fever and 3 patients did not give any reasons (figure 2). However none of them require admission or medical attention. Their oral intake was adequate on assessment prior to discharge.

97% (n=37) were satisfied with the treatment, the one who was not satisfied wanted to rest longer in the hospital. If given a choice, 11 patients (30%) preferred to stay in the hospital for at least 24 hours post surgery because of anxiety to the possibility of bleeding and wanted more rest in the hospital with nursing care. (figure 3)

DISCUSSION

One of the major driving forces for day care surgery is to reduce the health care cost and the waiting time for inpatient operating list surgery. It requires minimum post operative care which can be given at home with appropriate instruction and does not require overnight stay in the hospital. The benefits of day care surgery include less trauma and increase sense of safety to patients, the lifestyle is minimally affected and can return to usual environment thus avoid hospital routine.

The performance of tonsillectomy as a day case procedure remains controversial with concerns over postoperative morbidity. Complications usually seen with tonsillectomy are related to surgery or anaesthesia. Among others are post tonsillectomy bleeding either primary or secondary, airway distress, severe post operative pain, nausea and vomiting and dehydration secondary to poor oral intake. Primary bleeding is bleeding that occurs in the first 24 hours. Secondary bleeding is bleeding that occurs after 24 hours post-operative period. Minor bleeding is when it does not require any active measures and major bleeding is when control of hemorrhage under general anaesthesia is required.

A study done by Laureyns G *et al*, to assess the safety of tonsillectomy as an outpatient procedure found that there was no increase in incidence of bleeding and concluded that tonsillectomy can safely be performed as day-case surgery².

Literature reviews suggest primary hemorrhage rates of 1-3% and secondary hemorrhage rates of 0.15-6.4%^{3,4}. Reported primary post operative bleeding rates for day stay tonsillectomy vary from 0.6% to 3.5%^{5,6}. However none of our patient had post tonsillectomy bleed.

To minimize the potential for complications, appropriate patient selection is essential, as not all children are good candidates for day surgery. The family should remain close to the hospital and the parents should be responsible and capable of following postoperative instructions. Another essential factor in day surgery is the discharge criterion which includes stable vital signs, ability to tolerate fluids, control of pain, absence of nausea and responsible parents to care for the child⁷.

Explanations are given to all patients who are eligible for ACC including the benefits, cautions that should be undertaken and what action to be taken should any problem arise. They will be satisfied with the ambulatory care once the explanation was understood. Almost all of our respondents agree that surgery in ACC can be done and safe. However a few respondents are still concern of any complication that can occur at home. Jones DT *et al* found that 98.8% of respondents reported that they felt well prepared to care for their child at home after given instruction for post operative care⁸.

Kanerva *et al* noted in their study that, all parents (100%) thought that spending the first night at home is better than stay in the hospital when interviewed at post-operative day 1. However after 4 months, 94.5% said the same but 5.5% would prefer for their child to stay overnight in the hospital following the procedure.

They also found that if the patient shows no evidence of any serious medical condition that warrant post operative hospitalization, majority of tonsillectomy and/or adenoidectomy may be performed on outpatient basis⁹.

There has been ongoing and justified concern regarding what constitutes an adequate period of post operative observation before discharge. Mitchell *et al* and Gablski *et al* have suggested the post tonsillectomy observation may be safely reduced to 4 hours. The average length of observation period in our study was 4 hours post operatively, which is similar to that reported by Gablski and excellent outcomes were found on the basis of rate of post operative complications¹⁰.

The main problem in our patients according to respondent was poor oral intake and majority is due to inadequate pain control. However, none of them requiring admission. Focus on pain management has improved our daycare tonsillectomy outcome.

CONCLUSIONS

A daycare tonsillectomy can be safely performed without increase in rates of postoperative morbidity with proper selection of patients, a nearby home and a well prepared ambulatory daycare unit. Patient satisfaction is improved when explanation on the day care procedure and the caution were understood. Although 32% of patients had affected oral intake postoperatively and 30% prefer to stay for 24 hours if given a choice, however 97% of them were satisfied with day care tonsillectomy.

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