Available online at www.sciencedirect.com

ScienceDirect

journal homepage: www.elsevier.com/locate/apme

Original Article

# Daycare thyroidectomy surgery – Our experience

M. Babu Manohar [a], P.S.J. Vikram [b,*], V. Vidhya [c], Raees Abdurahiman [d]

[a] Senior Consultant ENT, Head and Neck Surgeon, Department of ENT, Head and Neck Surgery, Apollo Hospitals, 21, Greams Lane, Off Greams Road, Chennai 600006, India

[b] Associate ENT, Head and Neck Surgeon, Department of ENT, Head and Neck Surgery, Apollo Hospitals, 21, Greams Lane, Off Greams Road, Chennai 600006, India

[c] Senior Registrar, Department of ENT, Head and Neck Surgery, Apollo Hospitals, 21, Greams Lane, Off Greams Road, Chennai 600006, India

[d] Registrar, Department of ENT, Head and Neck Surgery, Apollo Hospitals, 21, Greams Lane, Off Greams Road, Chennai 600006, India

ARTICLE INFO

*Article history:*
Received 9 March 2015
Accepted 23 July 2015

*Keywords:*
Daycare thyroidectomy
Case series

ABSTRACT

*Background:* Outpatient surgery benefits patients and surgeons alike, as it is convenient, safe and cost-effective. We sought to assess the safety and feasibility of daycare thyroid surgery in a stand-alone Daycare Surgery Center in South India.

*Aim:* Our aim is to identify the difficulties, to formulate a protocol for daycare thyroidectomies and also to discuss its feasibility.

*Study design:* Case series.

*Methods:* We performed a prospective study of 71 patients who underwent total or hemithyroidectomy with or without neck dissection between January 2012 and March 2014 at Apollo Daycare Surgery Center, Chennai.

*Results:* Seventy-one patients met our inclusion criteria. Most patients were women (77%) and men were 23%. Only 1 patient developed haematoma, 1 patient developed tetany, and there was no incidence of stridor or recurrent laryngeal nerve injury.

*Conclusion:* Daycare thyroidectomies are safe and associated with low complication rate provided a strict inclusion and exclusion criteria is followed along with meticulous surgery.



## 1. Introduction

The advent and betterment of outpatient surgery has dramatically changed the landscape of the profession.

Just as other innovations such as antibiotics and improved anaesthetics have led to better outcomes for surgical patients, outpatient surgery has undoubtedly benefited patients and surgeons alike, as it is convenient, safe and cost-effective. However, many surgeons and institutions are hesitant to perform day surgery for some procedures. There are scant reports of daycare thyroid surgeries (DTS) in the literature. Many of the published studies on this topic have a small cohort of patients; others are highly selective and exclude total

* Corresponding author.
E-mail address: Vikrampsj@yahoo.com (P.S.J. Vikram).

http://dx.doi.org/10.1016/j.apme.2015.07.010

thyroidectomies or procedures performed to treat cancer. Finally, in several studies, the procedures are being performed in 23-hour stay units. It may not be that safe to discharge patients on the same day these procedures are performed. Hence, we sought to review the outcomes of patients who underwent thyroidectomies in an ambulatory centre. The procedures were performed to treat benign diseases and cancer and included hemithyroidectomies and total thyroidectomies with or without neck dissection.

## 2. Methods

We conducted a prospective study of DTS performed at Apollo Hospital, Chennai between January 2012 to March 2014.

Inclusion criteria for our study are outlined in Box 1.

Patients considered for this venue are made to meet an anaesthesiologist in the preoperative clinic and the patients are asked to remain in the city (within a 1-hour drive from the hospital) for 48 h after the operation. It is made mandatory that the patients remain in the presence of a second adult for the same period of time.

### 2.1. *Inclusion criteria*

The following aspects are considered criteria for inclusion: both benign and malignant thyroids, goitre of any size, euthyroid status, hypothyroid status corrected, patient residing in town, within a 1-hour drive from the hospital, for at least 48 h, patient seen in preadmission assessment clinic (by an anaesthesiologist) and cleared for day surgery (ASA grade I and II patients). Every patient was observed in the surgical day care unit for at least 4 h.

### 2.2. *Exclusion criteria*

The following aspects are considered criteria for exclusion: ASA Grade III and above patients, goitre with compressive symptoms, restrosternal extension, coagulopathy and age more than 65 years.

### 2.3. *Preoperative work up*

Thyroid function tests: serum calcium, neck ultrasound/CT scan, FNAC, indirect laryngoscopy, chest X-ray including neck, preanaesthetic check up, councelling for day surgery and endocrinologist opinion.

### 2.4. *Procedure*

Neck extension
Superficial cervical plexus block given
Local anaesthetic infiltrated
Standard skin crease incision given
Strap muscles retracted
Bipolar cautery only
Both the recurrent laryngeal nerves always identified and preserved
At least 2 parathyroids identified and preserved
Minivac suction drain placed

## 3. Results

A total of 71 patients underwent procedures during our study period. Most patients were women. The number of total thyroidectomies is 48, which includes 3 one side modified radical neck dissection (MRND), 1 bilateral MRND and 6 central neck node dissections. The number of hemithyroidectomies is 23.

| | N | Minimum | Maximum | Mean | Std. deviation |
|---|---|---|---|---|---|
| Age (years) | 71 | 18 | 61 | 38.33 | 10.029 |
| Valid N (listwise) | 71 | | | | |

| | N | Minimum | Maximum | Mean | Std. deviation |
|---|---|---|---|---|---|
| Clinical size | 71 | 3 | 10 | 4.92 | 1.918 |
| Valid N (listwise) | 71 | | | | |

| 0 | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|
| Valid | Euthyroidism | 86.1 | 86.1 | 86.1 |
| | Hypothyroidism (corrected) | 13.9 | 13.9 | 100.0 |
| | Total | 100.0 | 100.0 | |

| | | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | Benign | 57 | 80.29 | 80.29 | 80.29 |
| | Malignant | 14 | 19.71 | 19.71 | 100.0 |
| | Total | 71 | 100.0 | 100.0 | |

| | | Frequency | Percent | Valid percent | Cumulative percent |
|---|---|---|---|---|---|
| Valid | Total thyroidectomy | 48 | 67.61 | 67.61 | 67.61 |
| | Hemithyroidectomy | 23 | 32.39 | 32.39 | 100.0 |
| | Total | 71 | 100.0 | 100.0 | |

- Benign thyroids – 57
- Malignants – 14
- Papillary carcinoma – 10
- Follicular carcinoma – 3
- Medullary carcinoma – 1

| | | Mean | N | Std. deviation | Std. error mean |
|---|---|---|---|---|---|
| Pair 1 | Pre op-CA | 9.508 | 71 | 0.5315 | 0.0886 |
| | Post op-CA | 8.894 | 71 | 0.6210 | 0.1035 |