

A Clinical Evaluation of Total Thyroidectomy Manifestations, Indications, and Complications at Sulaymaniyah Teaching Hospitals



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ABSTRACT

Background: Overall, the management of thyroid disease still relies heavily on total thyroidectomy. **Aim:** The aim of the study was to describe the clinical manifestations, indications, and complications of total thyroidectomy performed for thyroid diseases in Sulaymaniyah, Shar, and Surgical teaching hospitals. **Patients and Methods:** A retrospective, descriptive cross-sectional study was conducted, including 167 patients who received total thyroidectomies at Sulaymaniyah Surgical Teaching Hospital and Shar Teaching Hospital in Sulaymaniyah City, Iraq, between January 1, 2020, and December 31, 2024. The data collected through a constructed questionnaire, which was filled out from patient chart files, was one of the study's instruments. Telephone calls were made to inquire about the patients' post-thyroidectomy problems and thyroxine dosage. **Results:** Out of the 167 patients who underwent total thyroidectomy, 147 were female. A total of 96 patients reported neck swelling, with 12 patients experiencing neck pain before surgery. In addition, 65 patients reported breathing difficulties, while others presented other clinical symptoms. 132 patients presented with benign multinodular goiter (MNG), toxic goiter, or diffuse goiter, while 35 patients were diagnosed with thyroid cancer or had suspicious glandular characteristics. 136 experienced no post-operative complications, whereas three individuals suffered from chronic voice change and persistent dyspnea. **Conclusion:** The predominant complaint of patients who underwent total thyroidectomy was neck swelling with neck discomfort before surgery. Patients diagnosed with MNG and thyroid cancer had a complete thyroidectomy. During post-operative follow-up, permanent voice change and permanent dyspnea were observed in some cases.

Index Terms: Goiter, Manifestations, Indications, Thyroidectomy, Complications

1. INTRODUCTION

Total thyroidectomy is a conclusive surgical intervention that entails the total excision of the thyroid gland, encompassing both the right and left lobes together with the connective

isthmus. It is commonly indicated when medical management is ineffective or malignancy is suspected [1]. It is considered the primary surgical strategy for the majority of thyroid cancer patients, who have papillary (accounting 85%) and follicular carcinomas, anaplastic and medullary carcinomas [2], [3]. Furthermore, it is recommended for symptomatic goiters accompanied by compressing trachea and esophagus, causing dysphagia, orthopnea, and dyspnea, or containing suspicious nodules [4], [5]. Thyroidectomy also be considered in Graves' disease or toxic nodular goiter (exceeding 4 cm), when antithyroid medications or radioactive iodine fail, and those who want final treatment with a low chance of recurrence [6], [7].

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The outcome of surgery relies on meticulous preoperative planning, encompassing preoperative evaluation for thyroid function test (thyroid-stimulating hormone [TSH], triiodothyronine, and thyroxine), ultrasonography, fine-needle aspiration cytology and vocal cord assessment [8]. Total thyroidectomy performed under general anesthesia via a transverse neck incision above the collarbone. Subplatysmal skin flaps are fashioned to reveal the underlying anterior jugular veins and strap muscles, which are aggressively incised to expose the thyroid gland and are frequently retracted laterally for better exposure. The superior pole of the thyroid is retracted inferiorly and laterally to expose the superior thyroid vessels, which are then dissected and individually ligated, followed by the ligation of the lower thyroid veins. The entire gland is removed, with careful conservation of the parathyroid glands and recurrent laryngeal nerves (RLNs). Before closure, meticulous hemostasis is essential; closed suction drainage is employed for patients with large goiters. The strap muscles are lightly approximated with sutures, followed by the closure of the platysma and the skin [9], [10].

Post total thyroidectomy, patients must be evaluated for hypocalcemia symptoms, including the assessment of ionized calcium and parathyroid hormone levels [11]. After surgery, patients need synthetic thyroid hormone replacement for the rest of their lives. To keep the appropriate range of TSH values, the starting dosage is often set at 1–2 mcg/kg/day [12], [13].

Hypoparathyroidism and temporary RLN palsy are the two main side effects of complete thyroidectomies. Chronic hypoparathyroidism and the incidence of hypocalcemia occur in 5–7% of cases. Hypocalcemia is characterized as having an ionized calcium concentration below 1.1 mM/L (0.275 mg/dL) or a total serum calcium below 2 mM/L (8 mg/dL) [14]–[17].

The majority of patients observe an enhancement in their thyroid status following a total thyroidectomy. It is a secure and efficient method for treating a variety of thyroid disorders, when carried out by a qualified surgeon, despite possible complications following the procedure [18]. The study by Jukić *et al.* [19] indicated that the recurrence and mortality rates of differentiated thyroid cancer, particularly papillary thyroid carcinomas, were exceedingly low. Also, the analysis study by Al-Ibraheem *et al.*, [20] showed favorable survival outcomes, and most patients had positive outcomes after total thyroidectomy.

It is crucial to carry out research on thyroid disorders and their treatment options. The prior study on thyroid illnesses indicated a global rise in their occurrence. Between 2014 and 2018, the age-standardized prevalence of thyroid illness among US adults rose [21]. In Iraq and the Kurdistan region indicates that goiter is a frequent condition among the inhabitants and thyroid dysfunction is more prevalent there. Which manifest as hyperthyroidism, hypothyroidism, and euthyroidism in the form of thyroid enlargement or nodules [22]–[24]. The aims of this retrospective cross-sectional study are to evaluate the indications and indicators for total thyroidectomy, along with its complications and associated outcomes.

2. PATIENTS AND METHODS

In this 5-year retrospective descriptive cross-sectional study, 167 out of 210 patients' medical records (120 from Shar Teaching Hospital and 90 from Surgical Teaching Hospital) who underwent total thyroidectomies are being analyzed. The data, sourced from the storage department of both hospitals in Sulaymaniyah city, covers the period from January 1, 2020, to December 31, 2024, and aims to evaluate the signs, symptoms, indications, and complications associated with thyroid surgery.

Inclusion criteria were all adult patients who had done total thyroidectomies. The exclusion criteria include adolescent patients under the age of eighteen and patients who had either a subtotal or hemithyroidectomy. Moreover, other thyroidectomies and instances (43 medical records from Shar and Surgical teaching hospitals) with insufficient information (missing ultrasound results and contact numbers) are omitted.

The tools were used for data collection in the study were a constructed questionnaire that was completed from patient records. Data were collected from the patient's records: patient's characteristics (age, gender, marital status, education, socioeconomic status income, occupation), presenting symptoms, and physical examinations findings. Furthermore, the patient's medical records comprised the following items: History of chronic illness, medications utilized for preoperative preparation of thyrotoxicosis patients, personal history including smoking and alcohol consumption, diagnostic investigations, ultrasound findings, fine needle aspiration results, and the surgical outcome encompassing success, complications, mortality, and recurrence.

The researchers contacted 167 patients who had undergone complete thyroidectomy by phone to verify complications

or disease recurrence. Each telephone interaction with the participants lasted 10–15 min.

The surgeries were performed by several general surgeons in the two primary surgical teaching facilities. Under general anesthesia, total thyroidectomy was carried out on all 167 patients. Total thyroidectomy is characterized by the surgeon’s endeavor to execute an extracapsular excision of the complete thyroid gland, inclusive of the pyramidal lobe, while safeguarding the parathyroid glands, RLNs, and external branches of the superior laryngeal nerves [25].

2.1. Setting of the Study

Sulaymaniyah Surgical Teaching Hospital, Sulaymaniyah/Iraq, situated next to Sulaymaniyah University’s old campus, this important public medical center in the Kurdistan Region offers planned, specialized surgical services with an emphasis on trauma, general surgery, and sophisticated urology operations.

Shar Teaching Hospital, Sulaymaniyah/Iraq, it is a notable 400-bed facility for inpatient care, encompassing specialist units for surgery, neurology, cardiology, and emergency services. It is situated on Malik Mahmood Circle Road and acts as a major center for scientific research and academic instruction.

2.2. Statistical Analysis

The statistical analysis is described, with data entered and analyzed using the Statistical Package for the Social Sciences (version28). All categorical variables were coded and verified to be complete before analysis. The sociodemographic and clinical features of the subjects were compiled using descriptive statistics. Absolute frequencies (*n*) and relative percentages are used to represent the categorical variables (age group, gender, domicile, occupation, marital status, education level, symptoms, surgical indication, chronic conditions, and post-operative complications). The threshold for statistical significance was established at $P < 0.05$.

2.3. Ethical Approval

- Official consent document for information collection for research from the Directorate of Health, Sulaymaniyah
- Obtaining authorization from the count department and teaching hospital administrations to collect and document data from patient files
- The patients’ consent was obtained over the phone lasted 10–15 min to collect additional data about post-operative problems.

3. RESULTS

Table 1 shows the majority of respondents were aged 45–54 years (32.3%). Regarding gender, female participants dominated the sample (88.0% compared to males (12.0%). In terms of occupation, most respondents identified as housewives (58.7%). Concerning marital status, the vast majority were married (88.0%). Residence distribution showed that most participants lived in urban areas (67.1%). For education level, the highest proportion had completed primary education (35.9%).

Table 2 revealed a wide range of presenting complaints, with varying prevalence rates. The most common symptom was neck swelling (57.5%), followed by difficulties breathing (37.7%) and palpitations (24.0%). Other notable symptoms included sweating (14.4%), nervousness (15.6%), weakness (18.0%), and fatigue and tiredness (18.6%). Less frequent symptoms included neck pain (12.0%), difficulties swallowing (7.8%), and tremors of hand (6.6%), and weight loss (6.6%). Rare presentations consisted of voice change (2.4%), fever (2.4%), exophthalmos (1.8%), depression (1.2%), weight gain (1.2%), vocal cord palsy (1.2%), and loss of appetite (0.6%). In addition, a subset of cases was incidentally detected (10.8%).

TABLE 1: Sociodemographic characteristics

Variable	Category	Frequency (92 Shar hospital, 75 surgical teaching hospital) (n=167)	Percentage
Age (years)	45–54	54	32.3
	35–44	48	28.7
	25–34	27	16.2
	55–64	17	10.2
	≥65	13	7.8
Gender	18–24	8	4.8
	Female	147	88.0
Occupation	Male	20	12.0
	Housewife	98	58.7
	Employed	50	29.9
	Worker	10	6.0
	Student	4	2.4
	Soldier	4	2.4
	Retired	1	0.6
Marital Status	Married	147	88.0
	Single	20	12.0
Residence	Urban	112	67.1
	Suburban	55	32.9
Education level	Primary	60	35.9
	Secondary	48	28.7
	Illiterate	37	22.2
	Institute/ University	22	13.2

TABLE 2: Incidence of clinical manifestations (6–12 months) preoperative

Symptoms	Frequency (n=167)	Percentage
Neck swelling	96	57.5
Difficulties breathing	63	37.7
Palpitation	40	24.0
Fatigue and tiredness	31	18.6
Weakness	30	18.0
Nervousness	26	15.6
Sweating	24	14.4
Neck pain	20	12.0
Incidentally	18	10.8
Hair loss	14	8.4
Difficulties swallowing	13	7.8
Tremors of hand	11	6.6
Weight loss	11	6.6
Insomnia	7	4.2
Heat intolerance	5	3.0
Fever	4	2.4
Voice change	4	2.4
Exophthalmos	3	1.8
Depression	2	1.2
Weight gain	2	1.2
Vocal cord palsy	2	1.2
Loss of appetite	1	0.0

TABLE 3: Indications of total thyroidectomy

Indications	Frequency (n=167)	Percentage
MNG	69	41.3
Toxic goiter	15	9.0
MNG, toxic goiter	8	4.8
Papillary thyroid carcinoma	7	4.2
MNG, cystic	7	4.2
Suspicious nodule	6	3.6
Goiter	6	3.6
MNG, Bethesda II	5	3.0
Benign nodule	3	1.8
Suspicious lesion	3	1.8
Papillary thyroid nodule	3	1.8
Nodule, thyroiditis	3	1.8
Nodule, Bethesda II	3	1.8
Nodule, Bethesda III	3	1.8
Thyroid cancer	3	1.8
Chronic thyroiditis	2	1.2
Thyroid colloid cyst	2	1.2
Hashimoto's	2	1.2
Parathyroid adenoma	2	1.2
Suspicious papillary thyroid carcinoma	2	1.2
Multinodular	2	1.2
MNG Bethesda IV	2	1.2
MNG, thyroid cancer, lymph node involvement	2	1.2
MNG, retrosternal extension	2	1.2
Hypothyroidism	1	0.6
Benign cystic lesion	1	0.6
Carcinoma, multinodular	1	0.6
Goiter, nodule	1	0.6
MNG, thyroiditis	1	0.6

MNG: Multinodular goiter

Table 3 shows that multinodular goiter (MNG) being the most common indication, 69 cases (41.3%). Toxic goiter in 15 cases (9.0%), while MNG with toxic goiter in 8 cases (4.8%). Papillary thyroid carcinoma was identified in 7 cases (4.2%), and MNG with cystic changes in 7 cases (4.2%). Among benign conditions, suspicious nodules in 6 cases (3.6%), goiter alone in 6 cases (3.6%), and benign nodules in 3 cases (1.8%). Thyroid cancer (unspecified type) was documented in 3 cases (1.8%), along with papillary thyroid nodules in another 3 cases (1.8%). Cases of chronic thyroiditis and Hashimoto's thyroiditis were rare, comprising 2 cases (1.2%). Bethesda classifications included: Nodule, Bethesda II – 3 cases (1.8%). Nodule, Bethesda III – 3 cases (1.8%). MNG, Bethesda II – 5 cases (3.0%). MNG, Bethesda IV – 2 cases (1.2%). parathyroid adenoma (2 cases, 1.2%), retrosternal extension of MNG (2 cases, 1.2%), and MNG with thyroid cancer and lymph node involvement (2 cases, 1.2%). Rare indications such as hypothyroidism (0.6%), benign cystic lesion (0.6%), and carcinoma with multinodular presentation (0.6%) were also recorded.

Table 4 shows that the most common size nodules between 11 and 30 mm were the most prevalent, making up over half of all cases (26.3%+28.1% = 54.4%). The right Lobe is a common location for nodules (58.7%). Left Lobe nodules are also frequent (19.8%). Involvement of the Isthmus is rare, either alone (1.2%) or in combination with a lobe

(8.4%). Most nodules (82%) did not have calcifications. Most nodules (77.8%) did not show increased internal vascularity. Among the reported cases, Isoechoic was most common (7.2%), hypoechoic (6.6%), hyperechoic (5.4%). Among those with cysts, small cysts (11–20 mm) were the most common size (6.6%). Majority of cases (91.6%) had no abnormal lymph nodes.

Table 5 shows that the high rate of non-diagnostic samples (Bethesda I - 42.5%) had (MNG, nodule, goiter) without a cytological diagnosis. The second largest group is Bethesda II (Benign) at 38.9%. Combined with Non-diagnostic results, these two categories make up 81.4% of all cases, meaning the vast majority of FNAs did not indicate cancer.

Table 6 revealed that the majority of patients, 136 (81.4%), experienced no complications. The most common complication was temporary voice change, occurring in 13 cases (7.8%), followed by hypocalcemia in 9 cases

TABLE 4: Ultrasound results

Questions	Variable	Frequency (n=167)	Percentage
Nodule size	21–30 mm	47	28.1
	11–20 mm	44	26.3
	No nodule present	24	14.4
	1–10 mm	20	12.0
	31–40 mm	19	11.4
	51–60 mm	10	6.0
	61–70 mm	2	1.2
	71–80 mm	1	0.6
Nodule's specific location	Right lobe	98	58.7
	Left lobe	33	19.8
	Non-nodule	20	12.0
	Right lobe and isthmus	12	7.2
	Isthmus	2	1.2
Presence of calcifications	No	137	82
	Yes	30	18
	Vascularity	No	130
Echogenicity	Yes	37	22.2
	Not mentioned	128	76.6
Size of the thyroid cyst present	Isoechoic	12	7.2
	Hypoechoic	11	6.6
	Hyperechoic	9	5.4
	Isoechoic and hypoechoic	3	1.8
	Hypoechoic and hyperechoic	2	1.2
	Isoechoic and hyperechoic	1	0.6
	Isoechoic, hypoechoic, hyper	1	0.6
	Non-cyst	144	86.2
Cyst location	11–20 mm	11	6.6
	31–40 mm	5	3.0
	1–10 mm	4	2.4
	21–30 mm	3	1.8
	Right lobe	11	6.6
Size of lymph node present	Left lobe	9	5.4
	Isthmus	3	1.8
	No lymph node present	153	91.6
Size of lymph node present	11–20 mm	7	4.2
	1–10 mm	5	3.0
	21–30 mm	1	0.6

(5.4%). A combination of permanent voice change and permanent dyspnea in 1.8% of cases (0.6%) experienced both temporary voice change and permanent dyspnea. Permanent voice change, in 1 patient (0.6%), amenorrhea, in 1 patient (0.6%), numbness of the hand, in 1 patient (0.6%), keloid formation, in 1 patient (0.6%), and a hole in the scar area, in 1 patient (0.6%).

4. DISCUSSION

The criteria for complete thyroidectomy have expanded in conjunction with improvements in diagnostic accuracy, risk evaluation, and surgical safety. It is essential to reevaluate both the patient's clinical symptoms and the factors affecting the surgeon's method of decision-making about complete thyroidectomy. The present study assesses the indications and complications for complete thyroidectomy, along with associated sequelae. It revealed that among the patients attending the governorate hospitals in Sulaimaniyah city for thyroid issues, 167 underwent complete thyroidectomy to address their thyroid-related health concerns. Similarly, a retrospective cohort analysis carried out at one particular establishment reported that total thyroidectomy was performed on 543 patients from 2012 to 2021 [26].

Most thyroidectomy procedures were carried out on female patients [18]. The American Thyroid Association reports that 40% of patients who had thyroid surgery had a total thyroidectomy, and that 61% of these patients were female and had an average age of 50 [4]. Similarly, the findings of the current study highlight key demographic trends, such as the predominance of middle-aged, married, female housewives with primary education residing in urban areas.

TABLE 5: Diagnosis description and fine needle aspiration results description

Bethesda category	Fine needle aspiration results description	Diagnosis description	Frequency (n=167)	Percentage
I. Non-diagnostic	0 (empty), Besda 1	Non-specific findings (e.g., MNG, nodule, goiter)	71	42.50
II. Benign	Benign, benign follicular, benign colloid nodule, cystic degeneration, adenomatoid	Benign conditions (e.g., MNG, cyst, thyroiditis)	65	38.90
VI. Malignant	Papillary thyroid carcinoma, malignant, malignant PTC, PTC, Besda VI	Definitive diagnoses of malignancy (e.g., PTC)	16	9.60
V. Suspicious for malignancy	Suspicious PTC, metastatic PTC to lymph node	Highly suggestive of cancer	6	3.60
III. (AUS)	Atypia, Besda III, follicle lesion with atypia, Atypia (AUS),	Uncertainty (e.g., nodule, Bethesda III, Atypia)	5	3.00
IV. Follicular neoplasm	Hurthle cell neoplasm, follicular neoplasm, suspicious of follicular neoplasm	Suspicion for follicular-patterned neoplasm	4	2.40

AUS: Atypia of undetermined significance, MNG: Multinodular goiter, PTC: Papillary thyroid carcinoma

TABLE 6: Post-operative complications following total thyroidectomy

Complications	Frequency	Percentage
No complication	136	81.4
Temporary voice change	13	7.8
Hypocalcemia	9	5.4
Permanent voice change and permanent dyspnea	3	1.8
Permanent voice change	1	0.6
Amenorrhea	1	0.6
Numbness of the hand	1	0.6
Keloid	1	0.6
Hole in scar area	1	0.6
Temporary voice change and permanent dyspnea	1	0.6
Total	167	100

The analysis of symptom frequency among the current study participants indicated a variety of presenting issues, accompanied by differing prevalence rates. The predominant complaint was neck swelling at 57.5%, while 12.0% reported neck pain prior to surgery. Similarly, in Tomoda's study, 29.4% of patients experienced neck discomfort before surgery [27]. A research by Khan *et al.* assessed 124 patients for preoperative thyroid dysfunction, documenting that over one-third of patients had shortness of breath and palpitations [28]. The current study indicates that over one-third of patients report experiencing respiratory difficulties, followed by palpitations in 24.0% of cases; others complain of diverse clinical manifestations. Sweating, nervousness, weakness, and fatigue were some notable symptoms. Furthermore, a subset of instances was accidentally found, indicating that some people appear asymptotically or subclinically.

Thyroid nodules have become more commonplace globally in recent years [29], affecting up to 65% of the general population [30]. While the majority of thyroid nodules arise from benign conditions (exceeding 95%), the potential for thyroid cancer remains a risk [31]. Total thyroidectomy is frequently advised for patients with nodules exceeding 4 cm [7]. Fine needle aspiration is often used, based on a comprehensive risk assessment, to nodules larger than 1-2 cm in diameter. Over 500,000 thyroid nodule FNAs are performed in the US each year, of which over 200,000 are judged unnecessary. Similarly, in European countries with operational National Health Services, such as Germany and France, the vast majority of thyroidectomies performed for nodular thyroid disease have benign histology [3], [32], [33]. The current study's findings indicate that most patients indicated for total thyroidectomy had benign thyroid diseases, MNG, whether isolated or accompanied by toxic goiter and cystic alterations,

is the most prevalent benign thyroid disorder warranting surgical intervention, with nodule sizes typically ranging from 20 to 60 mm. Similarly, in the study done by Saleh *et al.*, it reports that common indications for thyroidectomy were MNG [34], whereas large nodules (65%) were the most prevalent reasons for surgical intervention, regardless of radiological suspicion of malignancy [35].

In this investigation, only 15% of patients were diagnosed with thyroid cancer of an undetermined kind, including one case of lymph node involvement and papillary thyroid carcinoma, with or without nodules (Bethesda II, Bethesda III, and Bethesda IV), which were suggested for surgical intervention. In contrast, according to the Gerardi study, 74.71% individuals were diagnosed with malignant disease, whereas 25.29% patients had benign pathology [16].

The most frequent side effect after total thyroidectomy is hypocalcemia, which is the predominant complication, with symptoms that can vary from moderate to severe, potentially extending hospitalization. Transient hypocalcemia occurs in 19–38% of patients, with persistent hypocalcemia emerging in 3% of these instances. Which is brought on by either temporary or chronic hypoparathyroidism, chronic hypoparathyroidism occurs in 5–7% of cases and is linked to diminished quality of life [17], [36], [37]. Intraoperative nerve monitoring and parathyroid detection techniques are necessary to reduce complications [9]. The study by Hsu *et al.* demonstrated that near-infrared autofluorescence correlates with a reduced frequency of transitory hypocalcemia and elevated calcium levels following total thyroidectomy [37].

Following transient or permanent hypoparathyroidism complication after post total thyroidectomy, transient or permanent RLN palsy may occur, with unilateral RLN paralysis being more prevalent (3.2–5.3%) than bilateral paralysis (0.2–0.5%). These conditions result in voice impairment, with women exhibiting a greater susceptibility to voice disorders than men, negatively affecting quality of life [38].

Bilateral vocal fold injuries following total thyroidectomy are significant consequences, notwithstanding their infrequent occurrence. Dyspnea of varying severity occurs due to vocal folds being stuck in a middle or paramedian position. Dysphonia, accompanied by dysphagia and dyspnea during speech, results from the intermediate posture of immobile vocal folds. The study by Testa *et al.* found that 68% of patients experienced dyspnea, roughly two-thirds of the whole cohort, whereas dysphonia, linked

with dysphagia and dyspnea during speech, was observed in 32% of patients [39], [40].

The current study revealed that the majority of patients 136 experienced no complications. Research conducted by Mohammed advocates for total thyroidectomy as the primary surgical method linked with fewer complications [41]. In this study, females may be more susceptible to certain post-operative complications, particularly hypocalcemia and voice changes, compared to males. However, temporary voice change 13 patients, and hypocalcemia nine patients were notable post-operative issues. In addition, four cases had permanent voice change with difficult breathing that greatly impacting quality of their lives. Less frequent complications included amenorrhea, numbness of the hand, keloid formation, and a hole in the scar area. Similarly, Viqar *et al.*, study, revealed that symptomatic hypocalcemia developed in 10 patients, followed by hoarseness six patients [42]. A research by Li *et al.* indicated that long-term dysphonia exceeding 30% without nerve injury may continue following thyroid surgery, with 78% of affected individuals being female, and shows that <10% of patients exhibit abnormal voice ratings [43].

5. LIMITATIONS

This study's primary limitation is that it is a retrospective analysis from a governorate's teaching hospital; hence, we are unable to include patients from several private surgical facilities in this study. Furthermore, we are facing difficulties in getting some of the patients through their phone numbers; some of them were not using the same phone number. The study's primary advantage is that it helps people with thyroid conditions identify and comprehend their issues and determine the best course of treatment for them, which advances medical knowledge. Research on surgical quality and patient outcomes is also beneficial to the health care system.

6. CONCLUSION

Common patient complaints preoperatively were symptoms such as neck swelling and pain, dyspnea, palpitations, and weakness. Furthermore, the study highlights MNG as the predominant thyroid pathology, followed by toxic goiter and neoplastic conditions such as papillary thyroid carcinoma and suspicious lesions. Despite the controversy surrounding complete thyroidectomy for benign thyroid conditions, it remains a viable choice for numerous benign thyroid illnesses. The findings indicate that while the majority of patients recovered without complications, transient voice changes

and hypocalcemia were notable post-operative issues. A combination of permanent voice change and permanent dyspnea was observed in some cases. Rare adverse events, though infrequent, warrant clinical attention.

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8. CONFLICTS OF INTERESTS

No conflicting interests.

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