

# Surgical Thyroid Diseases in Men: 61 Cases Studied-Experience of an Ent Department in Senegal

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## Abstract

**INTRODUCTION:** Thyroid disease in men is rare and often associated with an increased risk of malignancy. Surgery remains an effective treatment option. **METHODS:** This was a retrospective study conducted over a ten-year period from 1 January 2011 to 30 June 2021 on 61 male patients with thyroid gland disease who underwent surgical treatment. **RESULTS:** The average age was 36 years with an average duration of 4.8 years. Eight patients reported a family history of goitre. Cervical lymphadenopathy was found in 1.6% of patients, exophthalmos in 17 patients (27.8%) and two patients presented signs of compression such as dysphagia and dysphonia. 65.6% of patients were euthyroid. Cervical ultrasound revealed thyroid nodules in 40%, hetero-multi-nodular goitre (HMNG) in 30% and diffuse hypervascular goitre in 30%. The EUTIRADS score was 43% for EUTIRADS 3, 28% for EUTIRADS 4 and 14% for EUTIRADS 1 and 15% for EUTIRADS 5, respectively. Fine needle aspiration was performed in 6 patients. Total thyroidectomy was performed in 85% of cases, with 2 mediastinal-recurrent lymph node dissection for papillary carcinoma and lobo-isthmectomy in 15%. Postoperative complications were minor in 87% of cases. **CONCLUSION:** Surgical thyroid disease in men is highly diverse and poses challenges for therapeutic management due to the risk of malignancy associated with the male sex.

## Keywords

Goitre, Cancer, Male

## 1. Introduction

Surgical thyroid pathology is less common in men, with an increased risk of ma-

lignancy. Thyroid carcinomas are relatively rare malignant tumours, accounting for 1% of cancers [1]. They generally have a good prognosis and present with varied clinical and evolutionary aspects depending on their histological origin. Thyroid pathology is three times more common in women than in men [2]. Therefore, it is standard practice to consider any thyroid nodule occurring in a male patient as a diagnostic emergency requiring clinical and paraclinical evaluation [2]. In men, surgical management raises the issue of whether to routinely perform a total thyroidectomy, and more obviously of the central compartment, in cases where fine-needle aspiration or extemporaneous examination is not possible. This maximalist approach is motivated by the significant risk of malignancy in men [3].

The aim of our study is to evaluate the epidemiological, clinical, paraclinical, therapeutic and evolutionary characteristics of surgical thyroid pathology in men in an ENT department in Senegal.

## 2. Methods

This is a descriptive, retrospective study conducted over a ten-year period from 1 January 2011 to 30 June 2021 on 61 male patients with thyroid gland disease who underwent surgical treatment. Data was collected from archived patient records, discharge registers and anatomic pathology records. All male patients with thyroid disease who underwent surgical treatment during the study period were included in our study.

## 3. Results

The prevalence in our series was 4.2%. The average age was 36 years, ranging from 8 to 75 years. The average duration of the condition was 4.8 years, ranging from 1 month to 27 years. Eight patients reported a family history of goitre. No history of previous cervical irradiation was reported. Cervical lymphadenopathy was found in 1.6% of patients, exophthalmos in 17 patients (27.8%), and two patients presented with signs of compression such as dysphagia and dysphonia. In terms of hormones, 65.6% of patients were euthyroid. Cervical ultrasound revealed thyroid nodules in 40%, hetero-multi-nodular goitre (HMNG) in 30% and diffuse hypervascular goitre in 30%.

The EUTIRADS score was 43% for EUTIRADS 3, 28% for EUTIRADS 4 and 14% for EUTIRADS 1 and 15% for EUTIRADS 5, respectively. Fine needle aspiration was performed in 6 patients, with two results suggestive of malignant neoplasm.

Total thyroidectomy was performed in 85% of cases, with two mediastinal-recurrent lymph node dissection for papillary carcinoma and one lobectomy in 15% of cases. Postoperative recovery was uneventful in 87% of cases.

The complications observed are listed in **Table 1**.

Pathological examination of surgical specimens revealed 92% benign lesions (56 cases) and 8% malignant lesions (5 cases), including 3 papillary carcinomas, 1 vesicular carcinoma and 1 anaplastic carcinoma. Mortality in our series was 3%

(2 cases).

**Table 1.** Breakdown by complications.

Complications		Number	Percentage
<b>Vascular complications</b>	Compressive haematoma	02	3%
<b>Metabolic complications</b>	Hypocalcaemia	05	8%
<b>Nervous complications</b>	Dysphonia due to paresis Transient unilateral recurrent	01	1%

#### 4. Discussion

The prevalence in our study was 4.2%, which is consistent with data from African literature [4] [5]. Thyroid disorders were more common in young adults [6]. Exophthalmos, often found in Graves' disease, is particularly pronounced and more refractory in men [7].

The percentage of exophthalmos in our study is slightly higher than the trend described in the literature [8] [9]. Ultrasound is the gold standard morphological examination for thyroid disorders [10]. It allows exploration of the thyroid parenchyma and establishes the characteristics of the thyroid nodule for the EU-TI-RADS score. Fine needle aspiration is an essential and simple procedure for the preoperative management of a thyroid nodule. It is only valuable when the result is positive. Cytologically diagnosed malignant nodules account for approximately 5% of cases [11]. Fine needle aspiration was performed in six patients, with two results suggestive of a malignant neoplasm. The relatively low rate of thyroid fine needle aspiration in our series is due to our maximalist approach of offering total thyroidectomy in cases where ultrasound results are suspicious. For some patients, there was also the issue of affordability. The prevalence of thyroid cancer in our study is 8%, which corroborates the data in the literature [12]. Total thyroidectomy, sometimes combined with lymph node dissection, is a safe and effective technique, particularly in differentiated cancers in men [13].

The difficulties of surgical recurrence and the socio-cultural realities of the area, with frequent recourse to traditional healers, which can lead to loss of tracking, argue in favour of a maximalist approach of total thyroidectomy from the outset. Dissection improves the prognosis for cancer, prevents lymph node recurrence and avoids reoperation in a compartment that has already been surgically explored [13] [14].

In the absence of lymph node dissection, the relapse rate is around 14% of cases [15]. Radioiodine therapy can be used to treat residual thyroid tissue in differentiated tumours [12] [16]. There is a problem of accessibility in our context, which further justifies a maximalist approach to surgery in our practice. It was not performed in our series. The classic complications of thyroid surgery are vascular (haematoma), metabolic (hypocalcaemia) and neurological (recurrent risk) [17] [18]. Papillary carcinoma was the most common form. This predominance of the papillary form is found in several series [19]. The prognosis for thyroid disease,

even cancerous thyroid disease, remains good, with a survival rate of over 90% after 5 years [20] [21]. Mortality was 3% in our study.

## 5. Conclusion

Surgical thyroid pathology in men is highly diverse and poses a problem in terms of therapeutic management due to the risk of malignancy attributed to the male sex. It remains relatively rare. It should be noted that the prognosis for these lesions is good. Total thyroid surgery is an effective technique in our context.

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## Consent

The patient gave informed consent.

## Author Contributions

All authors read and approved the final manuscript.

## Conflicts of Interest

The authors declare that they have no conflicts of interest regarding the publication of this article.

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