Associated Complications and survival rate after thyroid cancer operation

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Abstract

Background: Thyroid cancer is a common endocrine neoplasm in all parts of the world and the commonest histologic type is PTC. The Treatment of choice for this pathology is surgery and it has associated complications commonly hypocalcaemia and RLNP with specific survival rates.

Objective: To find out the incidence of associated complications of thyroid surgery with their survival rates.

Patients and Methods: We analysed data from 574 patients diagnosed with TC from 2018 to 2021, using the Kaplan-Meier method and log-rank test to determine complications of thyroid surgery and overall survival.

Results: The mean age of the patients was 41.3 (±14.1) years, there were 92(16%) patients aged >55 years and 482(84%) patients ≤ 55 years old at the time of diagnosis. Females were more affected by the female: male ratio (3.9: 1); 456 cases occurred in females (79.4%) and 118 in males (20.6%). The most common modes of presentation were neck lump in 492 (85.7%) patients and tumor size ≤4 cm in 495(86.3) patients. The commonest stage at diagnosis is stage I 494(86.1%), of the cases confined to the thyroid gland. The main surgical procedure was total thyroidectomy for 470(81.9%) patients. The common complications are hypocalcemia 70(12.6%) and 46(8.3%) developed RLN damage. The mean survival time was (55.87) months (CI = 54.86-56.88 months), but varies according to age < 55 years (58.02 months) and ≥ 55 years (44.426 months). Sex female has a better prognosis (56.540 months) while males (52.40 months). stage I mean survival was (58.79months) while a decrease in stage IV mean survival was (23.36 months).

Conclusion: The incidence of complications associated with TC surgery in our study is close to what was published elsewhere in the world with slight differences in percentages of each complication. The survival rate drops within the available ranges.

Keywords: Thyroid cancer, Total Thyroidectomy, Postoperative complication and Survival.

Introduction

The most prevalent type of endocrine cancer is that of the thyroid gland and its incidence has steadily increased over the past three decades all over the world. Mainly from follicular cell differentiated thyroid cancer (DTC) [ which subsequently consists of papillary thyroid cancer (PTC) and follicular thyroid cancer (FTC)], anaplastic thyroid
cancer (ATC), and poorly differentiated thyroid cancer]. Medullary thyroid cancer (MTC) originates from neural crest-derived C-cells, but the incidence of MTC has been largely constant throughout the past few decades [1]. Thirty per cent of diagnosed cases has been identified only by histopathologic examination [2].

Both age and gender have a significant effect on the prevalence of thyroid cancer. The women-to-men ratio is consistently high (approximately 3:1), especially after puberty and during the reproductive years [3]. Thyroid cancer can develop at any age; however, around two-thirds of all diagnosed cases occur in people between the ages of 20 and 55. The age of 60 is typically the cutoff for diagnosing anaplastic thyroid cancer [4, 5].

These two factors may affect both survival rates and associated complications [6].

The most common postoperative complications encountered with thyroid surgery are hypocalcemia; hypothyroidism; recurrent laryngeal palsy; hematoma; wound infection; stitch granuloma; keloid and scar formation [7].

Hypocalcemia complications are commonly seen in total and completion surgeries of TC. Among the explanations for complications are an extension of the tumor, lack of experience, and jeopardization of vascularity in the region [8]. Hypocalcemia may significantly affect many systems in the body, especially the nervous and skeletal systems. clinically can be seen as muscle cramps, seizures, nerve dysfunctions, heart failure and bone remodeling problems [9]. Hypocalcemia was defined as a case receiving calcium replacement therapy, or, with a serum calcium level of less than 8.0 mg or an ionized calcium level of 1.13 mmol/l [10].

Any hematoma, may lead to difficulties in breathing and swallowing. They may be even life-threatening for the patient. On the other hand, ugly scars especially in young females are one of the main points of concern that need special attention [11].

The survival rate for patients after thyroid cancer surgery depends on the histopathological diagnosis and in general, the overall prognosis of PTC and FTC is excellent, which is around 96% [12]. However, Hurthle cell cancer (HCC), MTC, poorly differentiated thyroid cancer (PDTC), and ATC at advanced stages III-IV have a very poor prognosis [13].

In this way, both complications and survival rates are two points of concern for both surgeon and patient. They should be studied in detail to give minimum complications and a better survival rate.

Aim to evaluate associated complications and survival rate of operated cases for thyroid cancer in the three governorates of Iraq since 2018.

Patients and Methods

Data from operated thyroid cancer patients are collected from 1st of January 2018 to the 31st of December 2021 in Teaching hospitals at all the three governorates (Erbil, Sulaymaniyah and Duhok). Follow up done till the end of December 2022.

All cases diagnosed as thyroid cancer by both cytology and histopathological exam were included. Notes about preoperative evaluation by laryngoscopy, and neck ultrasonography were taken into consideration. The exclusion criterion was:
ages under 18 years old, those who refused to participate and inoperable cases.

A questionnaire was formulated especially for this reason. It includes both demographic and surgical information fields. The demographic characteristics of concern were age, sex. The surgical field includes clinical presentation, surgical procedure and follow-up.

Data regarding surgical outcomes, postoperative complications and survival rate for six months and one-year were gained after patient follow-up. An associated complication that was recorded includes hypocalcemia, RLNP, hematoma formation, wound infection, hypothyroidism, seroma, stitch granuloma and scar or keloid formation. These complications were established based on clinical assessment aided by biochemical and/or laryngoscopy examination.

Temporal and permanent complications were defined with a cut-off time of 6 months(14). Serum calcium levels were measured on the next postoperative day in all operated cases. Temporary hypocalcemia was considered when the total serum calcium level was less than 8.0 mg/dL associated with muscle spasms, perioral numbness, and tingling sensation and which responded to exogenous calcium supplementation for less than 6 months. Likewise, permanent hypocalcemia was considered when both clinical and biochemical findings persisted for more than 6 months despite regular calcium and vitamin D supplementation.

RLNP was defined as the presence of hoarseness or vocal cord palsy confirmed post-operatively by an otolaryngologist by laryngoscopic evaluation as recorded in the chart.

Other complications like hematoma, wound infection, seroma, and stitch granuloma were included if they were seen clinically.

All patients were follow-uped by direct contact or by telephone call: asking about the presence of any complications after surgery, development of ugly scar at the site of operation and whether patient is alive or dead?

Hypothyroidism defined as an underactive thyroid is when the thyroid gland doesn't make enough thyroid hormones to meet body’s need. TSH concentrations above the reference range (most commonly used 0.5 to 4.5 mIU/L). we didn’t evaluate the hypothyroidism because we only analyzed early complications of thyroid cancer operation and the majority of cases are totally thyroidectomized even those patients lobotomized are putting on thyroxine to reduce TSH level.

Prognostic factors for survival rates according to: age, sex, type of thyroid cancer, staging of tumor and treatment were calculated. The guidelines of the American Joint Committee on Cancer were used for staging: tumor (T), nodal (N), and distant metastasis (M).

Statistical Analysis

Data entry was carried out by Excel sheet analyzed using the SPSS version 25. Numerical variables were summarized by calculating the means and the standard deviations (SDs). Categorical variables were presented in the form of frequencies and proportions. Kaplan-Meier survival analysis was applied, and Log Rank (Mantel-Cox) test was used to compare the survival curves of
the studied variables (like age, gender, grading, and size). The Kaplan-Meier method and log-rank estimate is the simplest way of computing the survival over time in spite of all these difficulties associated with subjects or situations. The Kaplan-Meier survival curve is defined as the probability of surviving in a given length of time while considering time in many small intervals[15]. A P value of ≤ 0.05 was considered statistically significant.

Results

The total number of patients with TC was 574 cases. Among them, thyroid surgery was performed for 557 (97.3%) cases. The mean age was 41.3 (±14.1) years, the median was 38.5 years, and the age range was 18-87 years. There were 92(16%) patients aged >55 years old and 482(84%) patients ≤ 55 years old at the time of diagnosis. Regarding gender comprising 456 females (79.4%) and 118 males (20.6%). The female: male ratio was 3.9: 1. The most common modes of presentation were a lump in 492 (85.7%) patients, pain in 140(24.4%) patients, and dyspnea in 134(23.3%) patients, dysphagia 50(8.7), hoarseness of voice 36(6.3) and stridor 7(1.2). before the operation, results of the fine needle aspiration cytology showed that 382(66.6%) of the specimens were malignant.

The most common histopathological diagnosis was papillary carcinoma in 479(86.0%) of patients, stage I is the commonest type in 494(86.1), mean tumor size was 2.26 cm and 79(13.7) patients’ tumor size >4 cm. Surgical interventions were done in 557(97.3) patients. Total thyroidectomy (TT) was done for 470(81.9%) of patients, lobectomy with completion was done for 44(7.7%) of patients, and lobectomy was done for 34(5.9%) of patients, in addition to the other details mentioned in Table (1).

<table>
<thead>
<tr>
<th>Table (1): Characteristics of Thyroid Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FNAC n=574</strong></td>
</tr>
<tr>
<td>Benign</td>
</tr>
<tr>
<td>Indeterminant</td>
</tr>
<tr>
<td>Follicular neoplasm*</td>
</tr>
<tr>
<td>Malignant</td>
</tr>
<tr>
<td>Type of malignant (n=382)</td>
</tr>
<tr>
<td>Papillary</td>
</tr>
<tr>
<td>Medullary</td>
</tr>
<tr>
<td>Anaplastic</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td><strong>Histopathologic diagnosis n=557</strong></td>
</tr>
<tr>
<td>Papillary</td>
</tr>
<tr>
<td>Follicular</td>
</tr>
<tr>
<td>Huthle cell</td>
</tr>
</tbody>
</table>
### Table (2): Post-operative complications

<table>
<thead>
<tr>
<th></th>
<th>No.</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complication</td>
<td>416</td>
<td>(74.7)</td>
</tr>
<tr>
<td>Hypocalcemia</td>
<td>70</td>
<td>(12.6)</td>
</tr>
<tr>
<td>RLN damage</td>
<td>46</td>
<td>(8.3)</td>
</tr>
<tr>
<td>Hematoma</td>
<td>15</td>
<td>(2.7)</td>
</tr>
<tr>
<td>Wound infection</td>
<td>7</td>
<td>(1.3)</td>
</tr>
<tr>
<td>Seroma</td>
<td>3</td>
<td>(0.5)</td>
</tr>
<tr>
<td>Total</td>
<td>557</td>
<td>(100.0)</td>
</tr>
</tbody>
</table>

The majority 416 (74.7%) of the patients had no complication after the operation, 70 (12.6%) developed hypocalcemia, 15 (2.7%) developed RLN damage (Temporal 38 (6.8%) and Permanent 8 (1.5%)). 15 (2.7%) hematomata developed in addition to other complications mentioned in Table (2).

Regarding hypocalcaemia, in which both female gender and those age group ≤ 55 years old age were associated more risk of postoperative hypocalcaemia and those age...
group > 55 years old age is critical for associated complications like RLNP, hematoma and infection, which was significant correlation between patients age and male gender, additional information mentioned in Table (3).

**Table (3):** Post operative complication according to age group and gender

<table>
<thead>
<tr>
<th>Complication</th>
<th>≤ 55</th>
<th>&gt; 55</th>
<th>Male</th>
<th>Female</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complication</td>
<td>362 (75.6)</td>
<td>54 (69.2)</td>
<td>76 (69.7)</td>
<td>340 (75.9)</td>
<td>0.061*</td>
</tr>
<tr>
<td>Hypocalcaemia</td>
<td>62 (12.9)</td>
<td>8 (10.3)</td>
<td>12 (11)</td>
<td>58 (12.9)</td>
<td></td>
</tr>
<tr>
<td>RLN damage</td>
<td>38 (7.9)</td>
<td>8 (10.3)</td>
<td>13 (11.9)</td>
<td>33 (7.4)</td>
<td></td>
</tr>
<tr>
<td>Hematoma</td>
<td>10 (2.1)</td>
<td>5 (6.4)</td>
<td>5 (4.6)</td>
<td>10 (2.2)</td>
<td></td>
</tr>
<tr>
<td>Wound infection</td>
<td>4 (0.8)</td>
<td>3 (3.8)</td>
<td>1 (0.9)</td>
<td>6 (1.3)</td>
<td></td>
</tr>
<tr>
<td>Seroma</td>
<td>3 (0.6)</td>
<td>0 (0)</td>
<td>2 (1.8)</td>
<td>1 (0.2)</td>
<td></td>
</tr>
</tbody>
</table>

Regarding complications associated with different types of surgical approach were comprising only 141 (25.3%) patients, lobectomy had least complications (only one case (2.9%) of RLNP) and, total thyroidectomy had greatest complications 123 (26.2%) patients, hypocalcemia 63 cases (13.4%), 8 (18.18%) cases had RLN injury. in addition to other findings presented in Table (4).

**Table (4):** Complications according to types of operation

<table>
<thead>
<tr>
<th>Complication</th>
<th>Lobectomy</th>
<th>Subtotal thyroidectomy</th>
<th>Total thyroidectomy</th>
<th>Debulking</th>
<th>Lobectomy with completion</th>
<th>Total</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>No complication</td>
<td>33 (97.1)</td>
<td>2 (40)</td>
<td>34 (73.8)</td>
<td>3 (75)</td>
<td>31 (70.5)</td>
<td>416 (74.7)</td>
<td>0.02</td>
</tr>
<tr>
<td>Hypocalcaemia</td>
<td>0</td>
<td>2 (40)</td>
<td>63 (13.4)</td>
<td>1 (25)</td>
<td>4 (9.1)</td>
<td>70 (12.6)</td>
<td></td>
</tr>
<tr>
<td>RLN damage</td>
<td>1 (2.9)</td>
<td>0</td>
<td>37 (7.9)</td>
<td>0</td>
<td>8 (18.2)</td>
<td>46 (8.3)</td>
<td></td>
</tr>
<tr>
<td>Hematoma</td>
<td>0</td>
<td>0</td>
<td>14 (3)</td>
<td>0</td>
<td>1 (2.3)</td>
<td>15 (2.7)</td>
<td></td>
</tr>
<tr>
<td>Wound infection</td>
<td>0</td>
<td>1 (20)</td>
<td>6 (1.3)</td>
<td>0</td>
<td>0</td>
<td>7 (1.3)</td>
<td></td>
</tr>
<tr>
<td>Seroma</td>
<td>0</td>
<td>0</td>
<td>3 (0.6)</td>
<td>0</td>
<td>0</td>
<td>3 (0.5)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>34 (100)</td>
<td>5 (100)</td>
<td>470 (100)</td>
<td>4 (100)</td>
<td>44 (100)</td>
<td>557 (100)</td>
<td></td>
</tr>
</tbody>
</table>

The mean survival time of those 482 (84.0%) who aged less than 55 years (58.02 months) was significantly (p < 0.001) higher than the mean survival time of those 92 (16.0%) aged ≥ 55 years (44.42 months), male thyroid cancer patients showed a relatively poor prognosis compared to female cases, the mean survival time of females (56.54 months) was significantly (p = 0.011) higher than that of males (52.40 months) and survival time regarding the tumor stage, it was 58.79 months for stage I, and then it decreased to 23.36 months for stage IV (p < 0.001) as presented in Table (5).
Table (5): Mean survival time of the studied cases

<table>
<thead>
<tr>
<th>Variables*</th>
<th>Mean survival time (months)</th>
<th>Standard error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age at diagnosis</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 55</td>
<td>58.029</td>
<td>(0.323)</td>
<td>57.396</td>
<td>58.661</td>
</tr>
<tr>
<td>≥ 55</td>
<td>44.426</td>
<td>(2.430)</td>
<td>39.663</td>
<td>49.188</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>52.402</td>
<td>(1.472)</td>
<td>49.518</td>
<td>55.287</td>
</tr>
<tr>
<td>Female</td>
<td>56.540</td>
<td>(0.515)</td>
<td>55.532</td>
<td>57.549</td>
</tr>
<tr>
<td><strong>Staging</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage I</td>
<td>58.792</td>
<td>(0.148)</td>
<td>58.502</td>
<td>59.082</td>
</tr>
<tr>
<td>Stage II</td>
<td>49.412</td>
<td>(2.622)</td>
<td>44.272</td>
<td>54.551</td>
</tr>
<tr>
<td>Stage III</td>
<td>34.000</td>
<td>(5.367)</td>
<td>23.482</td>
<td>44.518</td>
</tr>
<tr>
<td>Stage IV</td>
<td>23.360</td>
<td>(3.507)</td>
<td>16.486</td>
<td>30.234</td>
</tr>
<tr>
<td>Overall</td>
<td>55.874</td>
<td>(0.515)</td>
<td>54.865</td>
<td>56.883</td>
</tr>
</tbody>
</table>

The survival was least when the tumor size exceeds 4 cm, and the difference between the mean survival time of the different tumor sizes was significant (p < 0.001) as illustrated in Figure (1).

It is evident in Figure (2) that there was a significant difference between the mean survival time of the histopathological cancer types (p < 0.001), where it is evident that the highest survival time was that of the PTC and the least survival time was that of the anaplastic type, and also the poorly differentiated type.
Discussion

In the current study, we found that the incidence rates of postoperative complications in thyroid surgery are as follows: temporal hypocalcemia, permanent hypocalcemia, temporal RLN palsy, permanent RLN palsy, hematoma, and seroma were 9.4%, 3.2%, 6.8%, 1.5%, 2.7%, and 0.5%, respectively all of which are in good agreement with other previous reports [16, 17].

We found that below 55 years old comprising (84.0%) of the total sample. According to previous literature, the occurrence of TC is considered to be much more in the age below 55 years old, like what Ghamari (2019) published [18]. The explanation of young age group involvement in TC may be due to poor diet or iodine deficiencies in our environment. Although there is a strong relationship between age and prognosis for different types of malignancies, in which young age groups with malignancies have a bad prognosis but in TC age prognostic factor is reverse, better prognosis in early ages [19]. These finding mimics our study (58.02 months) survival time and higher than the mean survival time of those cases (16.0%) aged > 55 years olds (44.42 months) survived. this correlation was statistically significant (p < 0.001).

Our finding regarding hypocalcemia is agree with that of Shuchleib-Cung et al (2022), in which both female gender and age group ≤55 years old age were associated with an increased risk of postoperative hypocalcemia [20]. In our results, it seems that the age >55 is critical for associated complications like RLNP, hematoma and infection. The incidence is much higher when compared with the group below 55 years old patients. such finding goes with the idea of Sze-How Ng et al (2012), but still, it is higher than that of Bliss et al (1999); Syebt et al (2009); Lang and Lo (2005); Passler et al (2002) (21).
Females are dominant in both prevalence and survival rates according to AGES and AMES with our data calculation and follow up. In the current study, they comprised 456 (79.4%) cases, with a female-to-male ratio of 3.9: 1. Author percentages vary slightly. For example, 79.0% Borges et al (2019); 81.05% Samargandy et al (2020); 83.8% of Povoa et al (2020) (22-24).

In our study, the male gender was dominant for RLNP, hematoma and seroma while the female gender had more cases of hypocalcemia. They are supporting the idea of poor male outcomes regarding thyroid surgery as it was mentioned by Margolick (2018); Weiss et al (2014); Suzuki et al (2016), but it is contradicting that of Vashishta et al (2012); Docimo et al (2017) [25].There is significant correlation between patients age >55 years old and male gender.

The survival rate in our study, for females was 56.54 months which is statistically significant (p = 0.011) higher than that of males (52.40 months). The higher survival rate in females compared to males has been published and assured by the majority of authors and one possible explanation for this phenomenon may come from the hormonal, effect of estrogen on the pathogenesis of tumours has been discussed [26, 27].

The tumor size may have a direct effect on both decisions of surgery and outcomes. The mean size among the participants in our study was 2.26 cm, which is comparable to the mean size found in other studies reported from Saudi Arabia (2.15 cm) [28]. In contrast to other parts of the world, in which smaller thyroid tumors have been diagnosed [29]. In our study, about 86.3% of the cases had tumor sizes ≤ 4 cm in diameter, which is usually associated with a good prognosis and it was similar to a previous study (30). All complications which happened were much more common in the tumor size ≤ 4cm groups except that for infection this finding may be due to the proportions of different tumor sizes in the sample. The increasing rate of infection in such tumor sizes (>4 cm) the explanation is not clear.

Regarding the survival time of tumor size, for those patients ≤4 cm better than those patients with tumor size >4 cm for the same period. The results are close to what was published by Zhang et al (2020) [31].

Our histopathology results showed that the PTC is the most common type (86.0%), followed by follicular (6.6%). This was comparable to both international and Middle East-focused literature [32, 33]. Our results showed a better prognosis for PTC compared to ATC and PDTC. Which is constant with previous studies [34, 35].

According to what was published by Manzardo et al (2020) using the 8th edition of TNM classification, the distribution of TC over stages is as follows: 89.2%, 8.3%, 0.8%, and 1.7% for stages I, II, III and IV respectively [36]. In our study, they were 86.1%, 8.1%, 0.5%, and 7.3% for stage I, II, III and IV respectively. It is very close to the above-mentioned results and to the majority of published materials.

In our study Survival time regarding the tumor stage, was (58.79) months for stage I, and then it decreased to (23.36) months for statistically significant stage IV (p < 0.001) which consistent to previous study that early detection of thyroid cancer better prognosis [37].
According to the guideline of American Thyroid Association of surgeons, the indication of total thyroidectomy (TT) should be tumor size, histopathologic report and radiologic findings [38]. In our study, 81.9% of patients underwent TT which is higher than what was published by Alawadhi et al (2020) and less than that of Alzahrani et al (2017) [28, 39]. The tendency for TT may come from the fact of difficulty of regular follow-up in our locality. When the surgeon knows that the patient cannot follow regular, short-duration follow-ups, he may decide to do a radical operation.

Another factor that may enhance TT as a decision surgery is the wide range of complications associated with completion surgery (CS) and the variety of histopathological features associated with TC, especially (focality, local metastasis, and vascular and capsular invasion). Dealing with such complications is difficult and expensive for patients, surgeons and medical institutions. The number of completed surgery in the current study was 7.7% due to malignant findings in histopathological results in which 6.8% were subtotal and 93.2% were lobectomy cases. Complications associated with different types of surgical approach were comprising only 25.3% out of which lobectomy had minimum complications (only one case of RLNP) and, total thyroidectomy had maximum complications (26.2%) with the most common complication being hypocalcemia (13.4%) and our result were comparable with what that published by Curto et al (2022)[40].

As complications associated with CS, current study there was 18.18% RLN injury; 9.1% hypocalcemia and 2.3% bleeding. This result resembles previous literature [41]. However, the survival rate after CS in our study was better than other types of surgery. The reason behind such a good survival rate may come from the primary surgery and the short duration between primary and CS.

**Conclusions**

The incidence of complications and survival time associated with TC surgery in our study is close to what was published elsewhere in the world with a slight difference in percentages, and it depends on the patient's condition, type of histopathology, the surgeon's skill and the type of surgery.

**Recommendations**

The relatively high proportion of patients underwent TT, point out the necessity of adopting certain guidelines for the indications of such surgeries, improving the training in surgical procedures and decreasing the rate of thyroidectomy to avoid the post-operative effect on patients’ psychology.

**Acknowledgement**

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**Ethical clearance:** This study is part of an ongoing PhD research project sponsored by the College of Medicine at Hawler Medical University. It was approved by the
Ethical Committee in the College of Medicine.

Conflict of interest: Nil

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المضاعفات المصاحبة ومعدل البقاء على قيد الحياة بعد عملية سرطان الغدة الدرقية

دلال حمد مصطفى 1، برخان سعيد أحمد 2

المتخصص

خلفية الدراسة: يعد سرطان الغدة الدرقية ورمًا شائعًا للغدد الصماء في جميع أنحاء العالم، والندوب النسيجي الأكثر شيوعًا هو سرطان الغدة الدرقية الحليمي. العلاج المفضل لهذا المرض هو الجراحة وقد أرتبطت مضاعفات شائعة لنقص كالسيوم الدم وإصابة الحنجرة المتكررة بفاقدة محددة

أهداف الدراسة: لمعرفة مدى حدوث المضاعفات المرتبطة بجراحة الغدة الدرقية مع معدلات بقاءهم على قيد الحياة

المرضى والطريقة: قمنا بتحليل البيانات من 574 مريضًا تم تشخيص إصابتهم بمرض سرطان الغدة الدرقية من 2018 إلى 2021، باستخدام طريقة Kaplan-Meier واختبار الترتيب القياسي لتحديد مضاعفات جراحة الغدة الدرقية والبقاء على قيد الحياة بشكل عام.

النتائج:

كان متوسط عمر المرضى 41.3±14.1 سنة، وكان هناك 92٪ مريضًا تزيد أعمارهم عن 55 سنة و482٪ مريضًا تعتبر أعمارهم أقل من 55 سنة. كانت النساء أكثر تأثرًا بنسبة الإناث مقابل نسبة الذكور (3.9:1)؛ حيث تم تشخيص 492 حالة في الإناث (85.7٪) و118 حالة في الذكور (20.6٪). كانت أكثر طرق العرض شيوعًا وجود كتلة في الرقبة في 495 حالة (86.3٪) وحجم الورم أقل من 4 سم في 495 حالة (86.3٪). الرحلة الأكثر شيوعًا في التشخيص هي المرحلة الأولى من الحالات المحصورة في الغدة الدرقية. كانت العملية الجراحية الرئيسية هي استئصال الغدة الدرقية الكلي لـ 470 حالة (81.9٪) و46 حالة (12.6٪). المضاعفات الشائعة هي نقص كالسيوم الدم (12.6٪) و46 حالة (12.6٪).

الانضمام في المرحلة الرابعة يمني البقاء على قيد الحياة (36٪). ظهور نقص كالسيوم الدم في العظام يشير إلى أن المضاعفات المرتبطة بجراحة الغدة الدرقية في دراستنا قريبة مما تم نشره في أماكن أخرى من العالم مع وجود اختلافات طفيفة في النسب النموية لكل مضاعفة. يخفض معدل البقاء ضمن النتائج المتاحة.

الاستنتاجات: إن حدوث المضاعفات المرتبطة بجراحة الغدة الدرقية في دراستنا قريب مما تم نشره في أماكن أخرى من العالم مع وجود اختلافات طفيفة في النسب النموية لكل مضاعفة. يخفض معدل البقاء ضمن النتائج المتاحة.

الكلمات المفتاحية: سرطان الغدة الدرقية، استئصال الغدة الدرقية الكلي، مضاعفات معددة بعد الجراحة، البقاء على قيد الحياة

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