Latoo MA, et al., J Otolaryng Head Neck Surg 2022, 8: 070
DOI: 10.24966/OHNS-010X/100070

HSOA Journal of Otolaryngology, Head and Neck Surgery

Review Article

Thyroid Neoplasm Management-A Quagmire in Covid Times

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Abstract

Corona Pandemic has had unprecedented implications on our health care, perhaps the worst health crisis of our lifetime. Patients with a fear of proven suspicious cancers suffered due to priority shifted towards covid 19 management. Though thyroid neoplasms are slow-growing, thyroid carcinomas with high-risk factors also continued to be deferred due to fear of transmitting or acquiring covid. RTPCR test for corona through a gold standard has a false negative value from 2-28%, which may inhibit surgeons and health care workers from deferring these patients as the asymptomatic and presymptomatic transmission is well known. We present management of thyroid neoplasms in such a situation by striking a balance between patient care and protection of health care workers' visas via covid with rationalization and channelization of resources for both.

Introduction

Corona Pandemic has had unprecedented implications on our lives, health care, clinical practice, the urgency of health problems, and mental health. Attention in health care focuses on patients suffering from covid-19 especially those who are symptomatic or have major health issues. Fear of acquiring and transmitting this corona infection has led to postponements and deferments of elective surgeries [1].

Despite this major health crisis, patients are always concerned about their health about other health issues, especially with the fear of proven or suspicious cancers. Some cancers are life-threatening and require urgent attention while other tumors may be monitored or treated later when covid issues are relatively settled [1].

After the WHO declaration, the United States Surgeon proclaimed a formal advisory to cancer elective surgeries at hospitals, due to concern that elective procedures may contribute to the spreading of Coronavirus and use medical facilities to manage the surge of Coronavirus disease. This recommendation was based on the American College of Surgeons statement [2,3]. However, this was vehemently challenged in the United States based on uncertainty on the predicted time course of covid-19 beyond a critical inflection point and implying that patients may be deprived of access to timely surgical care likely for months to come and the potential fallout of cancellation may have a more dramatic and immeasurable impact than morbidity and mortality inflicted by novel coronavirus disease. A current estimate suggests that more than 50% of all elective surgeries have the potential to inflict significant harm on patients if canceled or delayed. A recent publication from Shanghai reported on the inherent risks of delaying surgery for Colorectal cancer during the outbreak with anecdotal reports of individual patient stories like a woman stating that she felt there was a time bomb inside her after surgery for her cervical cancer had been canceled and indefinitely postponed [2].

Elective surgeries have pragmatically been stratified into **essentia**l which implies that there is an increased risk of adverse outcomes by delaying surgical care for an undetermined period versus **non-essentia**l or **discretionary** which alludes to purely elective procedures that are not time-sensitive for medical reasons. Cancer surgery and biopsies have been stratified into **Essential (elective)** with an urgent period of 1-3 months. Thyroid tumors are slow-growing tumors and don't qualify for emergent intervention, but many high-risk factors like size of tumor, nodal metastasis, extrathyroidal extension, locally advanced, age -which have a bearing on morbidity and survival warrant that such tumors be treated in Elective Essential group after prioritization [4,5].

The RTPCR covid 19 is considered to be the gold standard as compared to rapid antigen test and antibody test however principle concerns are the false-negative rate of between 2% and 29% equating to the sensitivity of 71%-98% with 63% for nasal swabs (commonly taken). accuracy likely to vary depending on factors like stage of disease, degree of viral multiplication, site examined, and how efficiently taken [6,7].

Being a referral center or a tertiary care center, we received many patients with thyroid tumors. Though thyroid tumors grow slowly and don't qualify for emergent intervention, there were a few factors that prompted us to intervene on semi emergent basis, and these included

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Citation: Latoo MA, Nisar J, Qadri MJ (2022) Thyroid Neoplasm Management-A Quagmire in Covid Times. J Otolaryng Head Neck Surg 8: 70.

Received: March 21, 2022; **Accepted:** April 25, 2022; **Published:** May 02, 2022

(a) Nodal Metastasis

(b) Extra thyroid extension

(c) Locally advanced tumor

(d) Age

(e) Size

(f) Mounting anxiety and stress in patients considering the tumor as a time bomb inside and lastly and most importantly the uncertainty about the predicted time course of covid-19 beyond a critical inflection. We at our center operated on 12 cases of thyroid tumors who were either dated for surgery before the declaration of a pandemic or who were reported during this pandemic as fresh cases. Some six odd low-risk cases continue to be in waiting. Patients were operated on after being prioritized based on the severity of the disease.

Materials and Methods

A total of 12 patients with thyroid neoplasms were operated on over 3 months. All patients were initially evaluated for Covid-19 symptoms followed by RTPCR for Covid 19 after which investigations like USG neck and FNAC were ordered with absolute precautions. Patients were prioritized as high risk and low risk based on age, size of the tumor, extra thyroid extension, and nodal metastasis. Patients with Papillary Carcinoma thyroid confined to one lobe without any other risk factor were counseled for deferment as were patients with follicular neoplasms considering slow growth of the tumor and need to rationalize and channel resources for Covid 19 management.

We have operated on 12 patients with thyroid neoplasms.7 patients underwent total thyroidectomy with neck dissection out of which 3 had bilateral SND, and 1 patient had a recurrence in level 5 after having undergone total thyroidectomy with SND previously. One patient underwent total thyroidectomy with central compartment clearance.1patient underwent total thyroidectomy with SND and central compartment clearance,4 patients underwent lobectomy (one for papillary carcinoma and the rest three for follicular neoplasms out of which one turned out to be follicular Carcinoma on histopathology) Out of 12 patients, 4 were females and rest were males. 3 patients (1 female and 2 males) were above the age of 55 years. 2 patients had an extrathyroidal extension on preoperative ultrasonography.

Operative setup

Surgery was planned after the preoperative RTPCR covid test was reported negative, However, precautions were taken for covid-19 considering the sensitivity of the RTPCR test. Anesthesia precautions are taken with one anesthetist fixed for intubation and extubation with proper PPE. Flexi-Metallic tube with HME filters to maintain heat and moisture exchange and at the same time act as filters for viruses and bacteria. The oral cavity was packed to cover any peritubular leak if any. Additionally, nasal cavity leakage of aerosols was prevented by plugging the nasal cavity with saline-soaked cottonoids. The Head of the patient was draped separately up to the chin to isolate and wall off the aerosol-generating area. Exhaust fans were used to create negative pressure in absence of modular theaters with the lamellar flow. Air conditioners were avoided instead table fans and wall fans were put in place. Minimal staff was encouraged both on the surgical and anesthesia sides. N-95 masks supplemented by surgical masks and eyeglasses were used by the whole staff. Bipolar cautery and harmonic scalpel were used more frequently while minimizing the use of monopolar cautery. Surgical ties were preferred over monopolar coagulation. Extubation was done in deeper planes to avoid bucking and coughing thereby avoiding aerosol contact if any.

Result and Discussion

Thyroid tumors grow slowly and there is no need for active and emergent intervention. Thyroid carcinomas have been classified into high risk, intermediate-risk, and low risk considering the biology of tumors, age of patients, grade of tumors, size of tumors, extrathyroidal extension, nodal metastasis, and distal metastasis. Needless to mention patients are extremely concerned for fear of any cancer whether it is thyroid or pancreatic cancer [1-3].

Though we received lot many pts at our center in our study, we stratified and prioritized patients based on the above prognostic factors of age (>50), extrathyroidal extension, nodal metastasis, and size of the tumor, besides the fear of tumor and impact on the mental frame was considered by due counseling and management at a proper time like the ones with the low-risk disease being operated at last after a gap of two months considering the need for utilization of essential items like PPE, ICU beds, PACU beds, ventilators and manpower for covid-19 management. At the time of submission of this article, there are many low-risk patients still waiting for surgery.

Considering the sensitivity of RTPCR and the fact that there are many asymptomatic patients shedding viruses and chances of exposing health care providers [6,7], all patients despite testing negative for RTPCR covid test were prepared and operated under strict covid-19 precautions as mentioned in the methodology. Pertinent to mention that all health care providers involved in the management of these patients have so far been safe as far as Covid 19 is concerned by the grace of GOD.

Needless to mention the management of Thyroid neoplasms need to be rationalized given the pandemic considering the biology of tumors but high-risk groups need to be given their due consideration to avoid morbidity and mortality of neoplasms which may outweigh Covid 19.

Conclusion

Rationalization of resources including manpower in the present pandemic viz management of Covid 19 needs to be balanced with the need for management of high-risk cancer surgeries, considering the mortality and morbidity both physical and mental for cancer patients which otherwise may be far more what Covid 19 will render. Every precaution needs to be taken despite negative RTPCR considering its sensitivity with the dictum **respect all but suspect all.**

References

1. Shaha AR (2020) Thyroid surgery during COVID -19 pandemic: Principles and philosophies. Head Neck 42:1322-1324.

2. Stahel PF (2020) How to risk-stratify elective surgery during the COVID-19 pandemic? Patient Saf in Surg 14: 8.

3. Bakkar S, Al-Omar K, Aljarrah Q, Al-Dabbas M, Al-Dabbas N, et al. (2020) Impact of COVID-19 on thyroid cancer surgery and adjunct therapy. Updates Surg 72: 867-869.

4. Amit M, Tam S, Boonsripitayanon M, Cabanillas ME, Busaidy NL, et.al. (2018) Association of lymph node density with the survival of patients with Papillary thyroid carcinoma. JAMA Otolaryngol Head Neck Surg 144: 108-114.

5. Haugen BR, Alexander EK, Bible KC, Doherty GM, Mandel SJ, et.al. (2016) 2015 American Thyroid Association Management Guidelines for Adult Patients with Thyroid Nodules and Differentiated Thyroid Cancer: The American Thyroid Association Guidelines Task Force on Thyroid Nodules and Differentiated Thyroid Cancer. Thyroid 26: 1-133.

6. La Marca A, Capuzzo M, Paglia T, Roli L, Trenti T, et.al. (2020) Testing for SARS-CoV-2 (COVID-19): a systematic review and clinical guide to molecular and serological in-vitro diagnostic assays. Reprod Biomed Online 41: 483-499.

7. Watson J, Whiting PF, Brush JE (2020) Interpreting a covid-19 test result. BMJ 369: m1808.

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