Ethical Dilemmas in the Management of Head and Neck Cancers in the Era of the COVID-19 Pandemic

Review

Rahim Dhanani[1], Muhammad Wasif[1], Hamdan Ahmed Pasha[2], Shayan Khalid Ghaloo[3], Muntazir Hussain[4], Abdul Basit Shah Vardag[3]

[1]Department of Otolaryngology, Head and Neck Surgery, Dr. Ziauddin University & Hospital, Karachi, Pakistan
[2]Department of Otolaryngology, Head and Neck Surgery, Fellow Head & Neck Surgical Oncology and Microvascular Reconstructive Surgery, Beth Israel Deaconess Medical Centre, Boston, USA
[3]Department of Surgery, Aga Khan University & Hospital, Karachi, Pakistan
[4]Department of Surgery, Cancer Foundation Hospital, Karachi, Pakistan

Abstract

Coronavirus disease 2019 (COVID-19) has emerged as an unforeseen challenge for head and neck cancer care providers. A similar challenge is also faced by other oncological fields, but the severity of this challenge is highest in otolaryngology because of the need for additional precautionary measures and curbs on the possibility of aerosol forming interventions related to the upper aerodigestive tract. In this narrative review, provision of ethical and consistent care on moral and professional grounds to head and neck cancer patients during the pandemic are discussed for professionals who provide head and neck oncology care.

Keywords: COVID-19, pandemics, ethics, head and neck cancer, otorhinolaryngology

ORCID ID of the authors:

R.D. 0000-0002-5519-862X;
M.W. 0000-0001-7776-1076;
H.A.P. 0000-0002-6620-7544;
S.K.G. 0000-0002-3237-0669;
M.H. 0000-0002-5688-1949;
A.B.S.V. 0000-0001-8257-219X.

Cite this article as: *Cite this article as: Dhanani R, Wasif M, Pasha HA, Ghaloo SK, Hussain M, Vardag ABS. Ethical Dilemmas in the Management of Head and Neck Cancers in the Era of the COVID-19 Pandemic. Turk Arch Otorhinolaryngol 2021; 60(1): 6-10.*

Corresponding Author:
Rahim Dhanani; dr.rahimdhanani@gmail.com

Received Date: 08.11.2021
Accepted Date: 26.01.2022

DOI: 10.4274/tao.2022.2021-11-7

Introduction

The coronavirus disease 2019 (COVID-19) pandemic has tested the mental and physical tenacity of humanity at multiple levels. During the pandemic, the field of medicine primarily focused on the prevention and management of COVID-19. In these difficult times, the practice of ancillary aspects of the field of medicine and surgery suffered severe polarization and ultimately led to the compromise of a huge subset of our patient population. Head and neck cancer patients partly form this subset. The grim environment of the pandemic delayed and even denied the due care needed for such patients (1). Surveys have showed a pervasive impact of the pandemic on the care of all cancer patients, some attributing it to the lack of preparatory steps and foresight, others calling it a crisis of conscience (2, 3). A recent study estimated 33,890 deaths in excess among the United States (US) cancer survivors over 40 years of age in the current COVID-19 pandemic (4). With the realization that the pandemic is here to stay and one would have to operate in all walks of life with its presence, the field of medicine must be molded if not

transformed in order to ensure effective medical care for all patient subsets. Head and neck cancer care, in order to address the conflicts considering the ongoing ethical issues, needs to standardize the goals of care in the light of the pandemic, and ensure consistency in these principles with apt allocation of the resources. This review intends to highlight the various aspects of head and neck cancer care, including the conflicts of duties for a physician, the balance of clinical ethics and public health ethics, and lastly the goals and the standards of care for such patients while ensuring consistent allocation of resources.

Conflict of Duties

During the pandemic, risks of exposure and contracting the COVID-19 virus have emerged as a great challenge for the clinicians providing care to the patients with head and neck cancers. The risk is higher especially while examining, performing biopsy and treating the diseases of the upper aerodigestive tract. A large number of health professionals were infected in the first cohort (3). Earlier, management, including the head and neck region, and endoscopic examination, biopsy, and surgery were all routinely performed procedures. In the current pandemic, however, the threat of potential aerosol formation of the SARS-CoV-2 virus has created hurdles in performing routine management and requires extra time and a lot of resources. Regularly updated and publishing guidelines and infection control measures confirm the importance of limiting unnecessary exposure of healthcare professionals as well as emphasizing on the protection of the patients (5, 6). For sure, protecting both healthcare workers and patients is our fundamental, professional and ethical responsibility; however, the conditions are yet to be balanced on how to provide the appropriate treatments that patients should receive while protecting healthcare workers.

Healthcare staff providing head and neck oncology care can refer to dynamic online guidelines and resources provided by societies including The American Head and Neck Society, The American Academy of Otolaryngology – Head & Neck Surgery, The American College of Surgeons, The Society of Surgical Oncology and The American Society of Clinical Oncology (3). All these available resources and guidelines emphasize the need to avoid all unnecessary clinical interactions, and to delay or postpone nonessential surgeries and procedures, although, such decisions should be made based on the physician's judgement, the patient's medical condition and the social needs.

While provision of the best standards of care to the patient is the ultimate goal of a healthcare professional, a balance should be maintained between the duty towards the patients and the duty of caring for ourselves and our colleagues. For example, the number of personnel in the operating room should be limited in such a manner that the surgical procedure can be performed with ease and at the same time not all the team members are at risk. Similarly, those patients who are on regular follow-up can be referred to telemedicine clinics rather than physical follow-ups. Head and neck oncology care providers should understand and recognize the stress of the current ongoing pandemic, and practice efficient selfcare which can be achieved by involvement in clinical activity only as long as deemed necessary for the patient and requires urgent intervention.

"Clinical Ethics" vs. "Public Health Ethics"

Medical ethics requires healthcare providers to consider the preferences of patients, providing maximum benefits to the patients while reducing harms and providing fair treatment options (7). Adhering to these principles has become a major challenge due to the lack of resources during the pandemic. There will be instances where we have to overlook the specific needs of an individual patient because of the obligation to protect the larger population and spare the resources for others. Situations like these highlight the increasing conflict between the principles of clinical and public health ethics (7). Clinical ethics emphasizes a healthy relationship between a patient and doctor and encourages the development of a management plan designed to provide the maximum benefit to an individual patient. In comparison, public health ethics is in the best interest of a larger population even if it turns out to be harmful to an individual patient.

Acceptance of this paradigm shift might prove to be difficult and become an increasing challenge for the head and neck cancer caregivers. Institutions should take lead from the front for smooth and swift shift to a public health framework. It should be distinguished by the oncology community that when the needs of a community outweigh the requirements of an individual patient. Which will ultimately lead to delay in treatment and use of nonstandard management protocols (3).

Goals of Care

Although the standard of care varies institutionally, we should deliver a universal benchmark of the most basic and realistic care goals during the pandemic. Any algorithm design has to address two key factors—protect the patient, the healthcare staff, and the community from COVID-19 and allocate resources fairly to prevent undue delay in the care of a cancer patient (8).

The complexities in the management of head and neck cancers stem from the many treatment options available in terms of surgery, radiation, chemotherapy, or a combination of these. Multidisciplinary tumor teams—comprising specialists from each of these domains—discuss individual patients in the light of the disease and patient-specific

factors, and reference rigorous scientific evidence to actualize the treatment pathway (9). These teams' roles of expediting the decision to treat the patient is of utmost importance and typically range from days to weeks. Any further delay can advance the stage and give rise to the need for further imaging and possibly change of treatment modality.

The four pillars of medical ethics—beneficence, nonmaleficence, patient autonomy and justice—place the goal of care to the patient in the center. Thus, individual patients have complete autonomy on deciding their treatment. In an ideal world, this should be unaffected by the availability of healthcare resources, access, and finances. COVID-19 exposed the disparity of these services available to cancer patients—even more strongly in the developing nations. The pandemic turns our perspective to the notion that medicine cannot be practiced in isolation from the world and is a complex interplay between political, economic and social factors influencing medical decisions (10, 11).

Studies today attempt to further characterize molecular level tumor characteristics as targets for therapy; e.g., for immune checkpoint inhibitors such as anti-program death (PD1) Nivolumab was approved by the FDA as a standard of care regimen for patients with platinum refractory recurrent/ metastatic head and neck squamous cell carcinoma (12). Although immunotherapy is currently utilized for palliative measures, deeper understanding might extend them to adjuvant or definitive treatment armamentarium as standard goals of care.

Standards of Care

The National Comprehensive Cancer Network (NCCN) guidelines play a very important part in determining the course of treatment for patients with head and neck cancers. These guidelines are updated at least annually. All these guidelines are derived from evidence which is reviewed. The NCCN guidelines were last updated in April 2021. There has not been enough data regarding COVID-19 to determine the risk to healthcare providers and patients with head and neck cancers.

Any form of treatment, whether surgery, radiotherapy or chemotherapy, comes with its own share of risks. The art of decision making is to weigh the benefits of any treatment against its known risks.

Due to the ongoing pandemic, many committees including the NCCN have come up with solutions that cannot be considered the standard of care. These include cancelling the clinic visits and imaging for routine cancer surveillance, conversion to telemedicine and avoiding aerosol generating procedures in the elective setting (13).

Most of these changes that have been proposed cannot be considered standard of care, but are deemed appropriate in these circumstances where minimizing exposure has become a priority (14).

These changes may not directly affect the management plan for patients with head and neck cancers, there is a possibility that early detection or recurrences can be missed. The question remains whether this risk is justified by the need to reduce exposure to COVID-19.

Consistency of Ethical Principles

Management of head and neck cancers requires a multidisciplinary care team including surgeons, radiation and medical oncologists, physiotherapists, psychologists, and nutritionists. Besides these main stakeholders there are many other members of the hospital care staff that are involved in the care of these patients including the nursing staff, healthcare assistants and intensive care specialists. Many factors need to be taken in account while taking decisions in the management of the patients with head and neck cancers, and the safety of both the patients and the healthcare personnel should be considered. When this pandemic first emerged on the world stage, the initial response from many head and neck cancer teams was that the surgeries were delayed indefinitely; however, as the pandemic progressed it became evident that these patients could not be left untreated for indefinite periods of time.

While the risks to the healthcare staff remains as threatening as ever, World Health Organization (WHO) highlighted an alarming rise in reports of verbal harassment, discrimination, and physical violence towards healthcare workers in the wake of COVID-19. WHO has also outlined specific World Patient Safety Day 2020 Goals for healthcare leaders to invest in, measure, and improve healthcare worker safety over the next year. The goals are intended for healthcare facilities to address five areas: preventing sharps injuries; reducing work-related stress and burnout; improving the use of personal protective equipment; promoting zero tolerance to violence against healthcare workers, and reporting and analyzing serious safety related incidents (15).

All patients should still be discussed in multidisciplinary tumor boards; however, these meetings can be held online rather than physically. Free flap reconstructions can be replaced with loco-regional flaps as free flaps require longer operating times and oftentimes require postoperative intensive care including ventilator support—which cannot be spared in an era when ventilators are scarce because of the overburden caused by COVID-19 affected patients (16). Another step that can be taken is that ancillary services can be provided via online channels; for example, nutrition and psychology clinics can monitor patients, and physiotherapy exercises can be taught to patients and families online.

Another important point that needs to be taken into account is that certain populations have been subjected to different treatments on basis of race, geographical and economic status while triaging patients for definitive treatment (17). All efforts should be taken to avoid this from happening and healthcare providers should partner with underrepresented groups to assure that the risks of care disparities are minimized in the face of crisis.

It is also important to take into account the patient's autonomy. It is the patient's right to make a decision about their medical care without their healthcare provider trying to influence their decision. The healthcare provider can help by informing the patient about the pros and cons of a particular management plan but cannot decide for the patient.

Allocation of Resources

The burden of COVID-19 was borne by a number of departments within a state, but hospitals were the real shock absorbers. It created an immense logistic inconvenience for the hospitals that were already rich in resources; however, the hospitals in a developing country like Pakistan were out of the league. Surgical treatment is the mainstay of head and neck cancer management and cannot be performed without having a ventilator, intensive care unit or special care unit on back up. Additionally, the operating team must be provided with an adequate number of personal protective equipment (PPE) and respirators in order to operate on a patient with head and neck cancer, but unfortunately such items are already scarce (8).

This is where the justified allocation of the resources or what we call, rationing, comes to play its part. Rationing has always been a topic of debate among healthcare providers. It can simply be defined as refusing the most beneficial treatment for a patient and providing an alternative treatment because of the scarcity of resources (18). In otolaryngology and head and neck surgery, a number of daycare procedures can be delayed in given circumstances, but the treatment of a patient with squamous cell carcinoma cannot be delayed as it will result in the extension of the disease which can threaten the patient's life. Therefore, in such cases, economic rationing can be achieved by maneuvers like limiting the number of staff involved in the pre-, intra and post-operative care of the patient. This will not only reduce the number of PPEs, masks, gloves, etc. utilized but also will prevent the exposure of a number of staff in the times of pandemic. This will be then a part of rationing to promote public health, where the exposure of an infected patient to the staff and other patients in the hospital is minimized.

COVID-19 and Healthcare Workers

An important consideration to be made is for the healthcare workers who are more vulnerable to dire complications of this disease, i.e., the elderly and those have other systematic diseases. A study from the USA and a systematic review published in BMJ have reported an alarmingly high rate of 37% mortality among healthcare workers who are above the age of 65 years (19, 20). This should prompt the authorities to keep these vulnerable healthcare providers away from taking care of patients with COVID-19 and instead use them in settings such as telemedicine, non-COVID-19 outpatient clinics or administrative positions. This can also be achieved by relocating the younger head and neck staff to the isolation wards if the units are having low number of cases.

Conclusion

During the pandemic there has been a significant risk to patients as well as healthcare professionals. Further, COVID-19 has jolted the true spirits of head and neck oncological care delivery. It has created a hurdle that must be recognized as an ethical dispute between the care of an individual and care of the society.

We recommend provision of consistent and ethical care to the patients with head and neck cancer. All cases should be discussed in multidisciplinary tumor board meetings which can be conducted online. Free flap reconstruction can be replaced by local flap reconstruction where necessary. Head and neck oncology care providers should practice efficient selfcare and justified allocation of resources should be performed. Lastly this epidemic should prompt the authorities to make long term policies regarding ethical considerations in a future pandemic which may well turn to have a much higher morbidity and mortality ratio then the current pandemic.

Peer-review: Externally peer-reviewed.

Author Contributions

Surgical and/or Medical Practices: R.D., S.K.G., Concept: R.D., M.W., H.A.P., M.H., Design: R.D., H.A.P., A.B.S.V., Literature Search: R.D., M.W., S.K.G., M.H., Writing: R.D., M.W., H.A.P., S.K.G., M.H., A.B.S.V.

Conflict of Interest: No conflict of interest was declared by the authors.

Financial Disclosure: The authors declared that this study received no financial support.

Main Points

- During the pandemic, the risks of exposure and contracting the COVID-19 virus have emerged as a great challenge for the clinicians providing care to the patients with head and neck cancer and the risk is higher especially while examining, performing biopsy, and treating diseases of the upper aerodigestive tract.
- Available resources and guidelines emphasize the need of avoiding all unnecessary clinical interactions and delaying or postponing surgeries and procedures which are nonessential.
- A balance should be maintained between the duty towards the patients and the duty of caring for ourselves and our colleagues.

References

1. Harky A, Chiu CM, Yau THL, Lai SHD. Cancer patient care during COVID-19. Cancer Cell 2020; 37: 749-50. [Crossref]
2. Papautsky EL, Hamlish T. Patient-reported treatment delays in breast cancer care during the COVID-19 pandemic. Breast Cancer Res Treat 2020; 184: 249-54. [Crossref]
3. Shuman AG, Campbell BH, AHNS Ethics & Professionalism Service. Ethical framework for head and neck cancer care impacted by COVID-19. Head Neck 2020; 42: 1214-7. [Crossref]
4. Lai AG, Pasea L, Banerjee A, Denaxas S, Katsoulis M, Chang WH, et al. Estimating excess mortality in people with cancer and multimorbidity in the COVID-19 emergency. MedRxiv Preprint posted online June 1, 2020. doi: 10.13140/RG.2.2.34254.82242 [Crossref]
5. Givi B, Schiff BA, Chinn SB, Clayburgh D, Iyer NG, Jalisi S, et al. Safety recommendations for evaluation and surgery of the head and neck during the COVID-19 pandemic. JAMA Otolaryngol Head Neck Surg 2020; 146: 579-84. [Crossref]
6. Pollei TR, Barrs DM, Hinni ML, Bansberg SF, Walter LC. Operative time and cost of resident surgical experience: effect of instituting an otolaryngology residency program. Otolaryngol Head Neck Surg 2013; 148: 912-8. [Crossref]
7. Beauchamp T, Childress J. Principles of Biomedical Ethics, 4th ed. Oxford Univ Press; 1994. [Crossref]
8. Gordin EA, Day A, Stankova L, Heitman E, Sadler J. Care in the time of coronavirus: ethical considerations in head and neck oncology. Head Neck 2020; 42: 1519-25. [Crossref]
9. Shellenberger TD, Weber RS. Multidisciplinary team planning for patients with head and neck cancer. Oral Maxillofac Surg Clin North Am 2018; 30: 435-44. [Crossref]
10. Cohen CJ, Chen Y, Orbach H, Freier-Dror Y, Auslander G, Breuer GS. Social values as an independent factor affecting end of life medical decision making. Med Health Care Philos 2015; 18: 71-80. [Crossref]
11. Baker ME. Economic, political and ethnic influences on end-of-life decision-making: a decade in review. J Health Soc Policy 2002; 14: 27-39. [Crossref]
12. Moskovitz J, Moy J, Ferris RL. Immunotherapy for head and neck squamous cell carcinoma. Curr Oncol Rep 2018; 20: 22. [Crossref]
13. Shokri T, Saadi RA, Liaw J, Bann DV, Patel VA, Goyal N, et al. Facial plastic and reconstructive surgery during the COVID-19 pandemic: implications in craniomaxillofacial trauma and head and neck reconstruction. Ann Plast Surg 2020; 85: S166-S70. [Crossref]
14. Singh AP, Berman AT, Marmarelis ME, Haas AR, Feigenberg SJ, Braun J, et al. Management of lung cancer during the COVID-19 pandemic. JCO Oncol Pract 2020; 16: 579-86. [Crossref]
15. WHO Geneva. Keep health workers safe to keep patients safe. 2020 September 17. Available from: URL: https://www.who.int/news/item/17-09-2020-keep-health-workers-safe-to-keep-patients-safe-who [Crossref]
16. Emanuel E, Persad G, Upshur R, Thome B, Parker M, Glickman A, et al. Fair allocation of scarce medical resources in the time of Covid-19. N Engl J Med 2020; 382: 2049-55. [Crossref]
17. Spector-Bagdady K, Lombardo PA. US Public health service STD experiments in Guatemala (1946–1948) and their aftermath. Ethics Hum Res 2019; 41: 29-34. [Crossref]
18. Scheunemann LP, White DB. The ethics and reality of rationing in medicine. Chest 2011; 140: 1625-32. [Crossref]
19. Hughes MM, Groenewold MR, Lessem SE, Xu K, Ussery EN, Wiegand RE, et al. Update: characteristics of health care personnel with COVID-19—United States, February 12-July 16, 2020. MMWR Morb Mortal Wkly Rep 2020; 69: 1364-8. [Crossref]
20. Bandyopadhyay S, Baticulon RE, Kadhum M, Alser M, Ojuka DK, Badereddin Y, et al. Infection and mortality of healthcare workers worldwide from COVID-19: a systematic review. BMJ Glob Health 2020; 5: e003097. [Crossref]