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Letter to the editor

Vicissitudes in oncological care during COVID19



The biological world war “C” against the novel coronavirus has impacted our resources and time-sensitive oncological surgeries. Amidst the global lockdown, cancer patients prefer home captivity and ingesting pain medications owing to their high susceptibility, contagion nature of COVID19, and the risk of early death. The deferral in diagnosis and the total treatment time can influence the oncological outcomes. Sensitization, awareness, telephonic triage, refurbishing the operating rooms, and a comprehensive holistic approach using the existing evidence is essential to enhance the clinical decision in the interest of our patients. Use of face mask and social distancing currently the only vaccine available to break the chain would soon be inevitable in every individual’s day to day activities. Covid19 has irrefutably demonstrated a turmoil that is likely to endure for the foreseeable future thereby necessitating the need to inject adequate resources into its operations. The scarcity of personal protective equipment’s globally can be minimized by adopting open innovation, sharing the access of designs, use of 3D printers [1] and Artificial intelligence to add liquidity to the resources.

Physicians in contrast to surgical oncologists can switch over their bedside profession, minimize contact with patients by telecommuting (opportunistic virtual screening) and prescribe medications. Head and Neck surgeries housed in the operating theatres generate aerosols: a reservoir for the novel coronavirus to flourish. The temporal patterns of viral shedding, basic reproduction no of 2.2–2.5, the incidence of the high false-negative rate of nucleic acid detection of 2019-nCoV infection, false-positive PCR from a dead virus and the risk of cross-infection do pose a threat prompting clinicians to consider every individual as COVID positive [2,3].

Globally to stem the escalation of the viral outbreak and the collapse of the health system there seems to be hush over non-COVID related deaths. The forgotten “C” seen in terms of reduced footfall in a cancer hospital (delay in oncological surgeries, rescheduling chemoradiation) can have a detrimental outcome. Salvaging cancer patients by ensuring a continuum of care, creation of “cancer hubs” as done by NHS England during this unprecedented crisis is essential.

*Robust infection control workflow: Dedicated operating theatres-intensive care units with laminar airflow, deploying staggering health care workforce, separate entry, and exit route while wheeling, minimizing human traffic, negative pressure canopy [4], avoidance of pre-medication or recovery room for confirmed or suspected COVID positive case. Anaesthetists need to judiciously use drugs to minimize recovery time and perhaps accomplish phase 1 recovery within the operative room [5]. Third level protection of health care workers who are in direct contact should be considered to prevent disease transmission, the emergence of clusters.

*Structural reformations in the theatre, adherence to the safety checklist can be some pre-emptive measures to blunt the spread of virus and cross-contamination.

*Transforming the positive pressure rooms: Positive pressure rooms

restrict the inflow of infection from the other parts of the theatre, supply an ultra-clean air system while the risk associated with positive pressure rooms is it provides an outlet for the infected air to escape into the environment. Theatre 1 (OT-1) of the main operating suite is often chosen for conversion to negative pressure ventilation. OT-1 is ideally the farthest away from the rest of the theatres enabling easier isolation. Besides, the two free sidewalls can house a separate exhaust system with an individual scrub area and a separate induction room. The salient feature of a negative pressure room is the presence of a robust low-level exhaust system that has to complete twin stage filtration checks (prefilter plus High-Efficiency Particulate Air (HEPA) filter) before its final exit via an exhaust air fan. To enable this an anteroom is designed at the front end of the scrub and induction rooms leading to OT-1 [6,7]. Following the completion of the case, a hydrogen peroxide vaporizer or sprayer can be used to disinfect the theatre.

*Negative-Pressure Otolaryngology Viral Isolation Drape (NOVID) have been designed that combines a negative pressure environment and a fluid-impervious barrier to minimize aerosols, droplets spread and backslash during irrigation in the surgical field [8].

*Portable devices (UV lamps) emitting UV light in the operating room are “no-touch” automated disinfection system and can be an additional adjunct to augment surface disinfection. Manual surface disinfection can have human errors while UV-C used alone may be inadequate by shadowing (areas of the room where UV-C light does not reach) [9].

*Robot-assisted surgeries offer precision, stability, and dexterity than the human hands that can tremble and fumble during stress. Robots can turn out to be effective resources in combating COVID-19 by offering

- (a) Clinical care: telemedicine, navigating high-risk zones and disinfection, automated swab collection, optimal smoke evacuation.
- (b) Logistics: segregation of contaminated waste
- (c) Reconnaissance: overseeing compliance with voluntary quarantines [10,11].

Robots do have limitations as they are taxing with coaxially mounted instruments and drain the resources with its exorbitant setup.

COVID-19 can impact a patient physically, mentally financially while foisting structural, ethical, and clinical challenges to the clinician. The crisis offers surgeons an unprecedented opportunity to reconsider practices, adopt a robust infection control workflow or face the repercussions post-pandemic. COVID-19 can also be a catalyst for integrating robots and Artificial intelligence into the health care system and minimize the exposure risk to health care workers.

Declaration of Competing Interest

The authors declared that there is no conflict of interest.

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