

style of online communication was a new mode in this special period, with advantages such as convenient and quick. It could be an effective supplement to daily work and would be utilized into work in future.

COVID-11. THE BRAIN TUMOR AND NOT FOR PROFIT AND CHARITY EXPERIENCE OF COVID 19: REACTING AND ADJUSTING TO AN UNPRECEDENTED GLOBAL PANDEMIC IN THE 21ST CENTURY

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The COVID-19 pandemic has not only affected individuals, but also disease specific not-for-profits and charities. Brain tumor not-for-profit and charitable organizations around the world exist in all shapes and sizes, and address unmet needs of the patients and caregivers they serve. The International Brain Tumor Alliance (IBTA) carried out an international survey to identify organization changes brought about by the virus and the approaches adopted to address operational challenges created by COVID-19. A 37-question survey was sent across the world. In total, 77 organizations from 22 countries responded. Descriptive statistics and content analysis were used to present RESULTS: Responses fell into three categories: 1) organizational characteristics, 2) the impact of COVID-19 on services, and 3) how COVID-19 has affected the financial and human resources in these organizations. Although organizational characteristics vary widely, common concerns reported across organizations were primarily: a) the disruption of activities which impacted organizations' abilities to offer their usual services and b) challenges to sustaining funding. Although brain tumor organizations have been impacted by the COVID-19 pandemic, organizations quickly adjusted to this unprecedented global healthcare crisis.

COVID-12. THE LONGITUDINAL IMPACT OF COVID-19 PANDEMIC ON NEUROSURGICAL PRACTICE

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OBJECTIVE: This observational cross-sectional multicenter study aimed to evaluate the longitudinal impact of the coronavirus disease 2019 (COVID-19) pandemic on neurosurgical practice. **METHODS:** We included 29 participating neurosurgeons in centers from all geographical regions in the Kingdom of Saudi Arabia. The study period, which was between March 5, 2020 and May 20, 2020, was divided into three equal periods to determine the longitudinal effect of COVID-19 measures on neurosurgical practice over time. **RESULTS:** During the 11-week study period, 474 neurosurgical interventions were performed. The median number of neurosurgical procedures per day was 5.5 (interquartile range [IQR]: 3.5–8). The number of cases declined from 72 in the first week and plateaued at the 30's range in subsequent weeks. The most and least number of performed procedures were oncology (129 [27.2%]) and functional procedures (6 [1.3%]), respectively. Emergency (Priority 1) cases were more frequent than non-urgent (Priority 4) cases (178 [37.6%] vs. 74 [15.6%], respectively). In our series, there were three positive COVID-19 cases. There was a significant among-period difference in the length of hospital stay, which dropped from a median stay of 7 days (IQR: 4 – 18) to 6 (IQR: 3 - 13) to 5 days (IQR: 2 - 8). There was no significant among-period difference with respect to institution type, complications, or mortality. **CONCLUSION:** Our study demonstrated that the COVID-19 pandemic decreased the number of procedures performed in neurosurgery practice. The load of emergency neurosurgery procedures did not change throughout the three periods, which reflects the need to designate ample resources to cover emergencies. Notably, with strict screening for COVID -19 infections, neurosurgical procedures could be safely performed during the early pandemic phase. We recommend to restart performing neurosurgical procedures once the pandemic gets stabilized to avoid possible post-pandemic health-care system intolerable overload.

COVID-13. EFFECTS OF COVID-19 PANDEMIC ON NEUROSURGICAL ONCOLOGY PRACTICES AT INOVA HEALTH SYSTEM: AN INSTITUTIONAL EXPERIENCE

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INTRODUCTION: Amidst the unprecedented nationwide ban on elective surgeries during the COVID-19 pandemic, concern regarding timely and safe treatment of patients with intracranial tumors has been raised in the neuro-oncology community. **METHODS:** A retrospective chart review was performed on all patients who underwent treatment for intracranial tumors from 3/12–7/1 for 2019 and 2020. Dates aligned with declaration of State of Emergency through the multi-phase public re-opening. Primary comparative endpoints included case volume, median time to surgery, chemotherapy, and radiation, and COVID-related mortality. **RESULTS:** Overall surgical case volume decreased by 26.6%, while a 46.9% decrease was evident during the ban on elective surgeries. Case reduction occurred only for glial (p= 0.33) and pituitary tumors (p=0.04) where volume was nearly identical for other tumors. Median time to surgery was 2.5 days (range: 0–9) for high-grade glioma patients, 3 days for metastases, 3 days for meningiomas, and 26 days (range: 0–98) for pituitary adenomas, not significantly different from 2019. Time to chemoradiation and planned number of treatments were without significant difference. Among 2,795 Covid-19 patients treated in our institution, only four had brain tumors. Only one patient experienced delayed radiation treatment (three weeks) due to inability to achieve seroconversion prior to planned simulation. Only one COVID-related mortality in our cohort occurred. **DISCUSSION:** The pandemic did not significantly delay type and time to treatment for neuro-oncology patients at Inova. With swift implementation of PPE and strict peri-operative testing, we provided standard of care treatment without increases in COVID-19 contraction or mortality. Decreases in overall case volume are likely due to ongoing cultural avoidance of seeking medical care; deferment of endonasal surgery may be attributed to a known greater mortality for ENT procedures. Future patient care challenges include establishing clinical significance of seroconversion for asymptomatic, COVID-19 infected patients without delaying necessary systemic treatment.

COVID-14. TELEMEDICINE REVIEW IN NEURO-ONCOLOGY: COMPARATIVE EXPERIENTIAL ANALYSIS FOR BARROW NEUROLOGICAL INSTITUTE AND GEISINGER HEALTH DURING THE 2020 COVID-19 PANDEMIC

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Coronavirus disease 2019 (COVID-19) has grossly impacted how we deliver healthcare and how healthcare institutions derive value from the care provided. At increased infectious risk on immunosuppressive therapies and often have mobility limitations. Adapting to new technologies and reimbursement patterns were challenges that had to be met by the institutions while patients struggled with decisions to prioritize concerns and to identify new pathways to care. With the implementation of social distancing practices, telemedicine plays an increasing role in patient care delivery, particularly in the field of Neurology. This is of particular concern in our cancer patient population given that these patients are often at increased infectious risk on immunosuppressive therapies and often have mobility limitations. We reviewed telemedicine practices in neurology pre-/post-COVID-19 and evaluated the neuro-oncology clinical practice approaches of two large care systems, Barrow Neurological Institute and Geisinger Health. Practice metrics were collected for impact on clinic volumes, institutional recovery techniques, and task force development to address COVID-19 specific issues. Neuro-Oncology divisions reached >67% of pre-pandemic capacity (patient visits and slot utilization) within 3-weeks and returned to >90% capacity within 6-weeks of initial closures due to COVID-19. The two health systems rapidly and effectively implemented telehealth practices to recover patient volumes. While telemedicine will not replace the in-person clinical visit, telemedicine will likely continue to be an integral part of neuro-oncologic care. Telemedicine has potential for expanding access in remote areas and provides a convenient alternative to patients with limited mobility, transportation, or other socioeconomic complexities that otherwise challenge patient visit adherence.

COVID-15. COVIDNEUROONC: A UK MULTI-CENTRE, PROSPECTIVE COHORT STUDY OF THE IMPACT OF THE COVID-19 PANDEMIC ON THE NEURO-ONCOLOGY SERVICE

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