

Comparative clinical and epidemiological study of central nervous system tumors in Pakistan and global database

Muhammad Nouman Mughal
Aga Khan University, Pakistan



THE AGA KHAN UNIVERSITY

Abstract

Introduction & Aim:

Brain tumors encompass a broad group showing wide geographic and ethnic variation in incidence. In keeping view the critical dearth of epidemiological data on CNS tumors from Pakistan we undertook this study, with the aim to first describe spectrum of CNS tumors at our center, and then to compare our results with prevalence pattern in global population using TCGA dataset.

Methodology:

Data was retrospectively collected from histopathology archives of Dow Diagnostic Reference and Research Lab (DDRRL), Dow University of Health Sciences (DUHS), Pakistan. Clinical data set for Low Grade Gliomas (LGG) and Glioblastoma (GBM) cohort (TCGA) was downloaded from cBioPortal. All the analyses were performed in IBM SPSS v. 24 and P value less than 0.05 was set as threshold to show significant difference.

Results:

Total 430 cases were enrolled in our study comprising of 224 males and 206 females of which 132 (30.7%) cases were of diffuse gliomas. WHO grade I (53.6%) was the prevalent grade group with nearly half (49.3%) cases diagnosed in adults (>36 years). Significant difference was recorded between our centre and global dataset with respect to age ($P<0.0001$), common histological subtype ($P<0.0001$), and histological grade ($P<0.0001$).

Conclusion:

Present study shows significant variation in CNS tumor prevalence pattern between our population and global data highlighting the need for epidemiological and scientific studies to delineate the environmental and genetic risk factors pertaining to our population.

Biography:

Muhammad Nouman Mughal has completed PhD from Karolinska Institute, Stockholm, Sweden and he is an Assistant Professor at Department of Surgery, Aga Khan University, Pakistan.

[6th International Conference on Neuro-Oncology and Brain Tumor](#), Webinar- June 22-23, 2020.

Abstract Citation:

Muhammad Nouman Mughal, Comparative clinical and epidemiological study of central nervous system tumors in Pakistan and global database, Neuro Oncology 2020, 6th International Conference on Neuro Oncology and Brain Tumor; Webinar- June 22-23, 2020

<https://neurooncology.conferenceseries.com/abstract/2020/comparative-clinical-and-epidemiological-study-of-central-nervous-system-tumors-in-pakistan-and-global-database>