

ABSTRACT

J Neurooncol. 2022 May 11. doi: 10.1007/s11060-022-04026-3. Online ahead of print.

Brachytherapy for central nervous system tumors.

Bander ED(1), Knisely JPS(2), Schwartz TH(3)(4).

Author information:

(1)Department of Neurosurgery, Weill Cornell Medical College, New York Presbyterian Hospital, New York, NY, USA.

(2)Department of Radiation Oncology, Weill Cornell Medical College, New York Presbyterian Hospital, New York, NY, USA.

(3)Department of Neurosurgery, Weill Cornell Medical College, New York Presbyterian Hospital, New York, NY, USA. schwarh@med.cornell.edu.

(4)Department of Otolaryngology, Department of Neurosurgery, Weill Cornell Medical College, New York Presbyterian Hospital, 525 East 68th St., Box #99, New York, NY, USA. schwarh@med.cornell.edu.

Radiation is a mainstay of treatment for central nervous system (CNS) tumors. Brachytherapy involves the placement of a localized/interstitial radiation source into a tumor or resection bed and has distinct advantages that can make it an attractive form of radiation when used in the appropriate setting. However, the data supporting use of brachytherapy is clouded by variability in radiation sources, techniques, delivered doses, and trial designs. The goal of this manuscript is to identify consistent themes, review the highest-level evidence and potential indications for brachytherapy in CNS tumors, as well as highlight avenues for future work. Improved understanding of the underlying biology, indications, complications, and evolving industry-academic collaborations, place brachytherapy on the brink of a resurgence.

© 2022. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.

DOI: 10.1007/s11060-022-04026-3

PMID: 35546384