INTRODUCTION Intracranial hemangioblastoma is a rare neoplasm that poses significant challenges in clinical management. Hemangioblastomas are characterized by unique radiological features into cystic or solid tumors. Our study aims to evaluate the role of SRS in the management of cystic and solid hemangioblastomas in a single institution setting.

METHODS We conducted a retrospective analysis of clinical and radiological outcomes of patients with intracranial hemangioblastomas treated with CyberKnife SRS at our institute between 1998 and 2023. The follow-up data were available for 93 intracranial hemangioblastomas in 23 patients. Ten (43.5%) patients presented with 23 (25.6%) cystic hemangioblastomas, while 13 (56.5%) patients had 70 (75.3%) solid hemangioblastomas at the time of SRS treatment. The median age was 36 years and the median tumor volume accounted for 0.43 cc. The SRS was administered with the median single-fraction equivalent dose (SFED) of 20 Gy at the 77% of the median isodose line.

RESULTS At a one-year follow-up, 11 initially solid hemangioblastomas developed cystic formation, resulting in a total of 34 (36.6%) cystic hemangioblastomas and 59 (63.4%) solid hemangioblastomas across 13 and 10 patients, respectively. Among these, 84.6% exhibited peritumoral edema prior to the onset of cystic formation. For 37 solid hemangioblastomas accompanied by peritumoral edema, SRS was administered before cystic transformation, remaining solid throughout the latest follow-up. Over a median follow-up period of 59 months (range: 3-260), 6 (17.6%) cystic and 13 (22%) solid hemangioblastomas progressed. The 5-year local tumor control (LTC) rate for intracranial hemangioblastomas was 84.7%, with 97% and 76.9% in cystic and solid lesions, respectively. CONCLUSION Our study illustrates the largest single-institutional long-term retrospective analysis of intracranial hemangioblastomas treated with SRS to date. Early SRS treatment at the time of edema may prevent cystic hemangioblastoma development and provides durable treatment outcomes for patients with both cystic and solid hemangioblastomas in long-term.
NOW ENROLLING
Phase 2b study of IGV-001 in patients with newly diagnosed glioblastoma (NCT04485949)

OBJECTIVES

- PRIMARY OBJECTIVE: Progression-free survival
- SECONDARY OBJECTIVE: Overall survival
- SAFETY OBJECTIVE: Safety and tolerability

Key Inclusion Criteria
Patients who take part in the trial* must:
- Have newly diagnosed glioblastoma
- Be 18 to 70 years of age
- Have a KPS score ≥70 (unable to work but able to care for themselves overall)

Key Exclusion Criteria
Patients are not allowed to participate* in the trial if they have:
- A tumor that is on both sides of the brain
- Had previous surgery or anticancer treatment for glioblastoma
- Glioblastoma that came back
- Another cancer† while having glioblastoma or within the last 3 years that is not cured
- A weakened immune system (example: HIV, HBV, HCV) or an autoimmune disorder (example: Crohn’s disease)
- Heart disease or history of heart issues

*Additional criteria apply. Please refer to protocol 14379-201 for full inclusion and exclusion criteria. †Patients can participate if they had some skin cancers, superficial bladder cancer (cancer that was only on the surface of the lining of the bladder), or carcinoma in situ (cancer that had not spread) of the cervix or breast that had been cured.

HIV, human immunodeficiency virus; HBV, hepatitis B virus; HCV, hepatitis C virus; IGF-1R, insulin-like growth factor 1 receptor; KPS, Karnofsky Performance Scale; RT, radiotherapy; SOC, standard of care; TMZ, temozolomide.

© Copyright 2023 Imvax, Inc. All rights reserved.