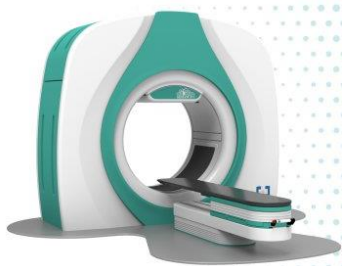


Early Outcomes of Glioblastoma Treated With IMRT & CBCT Guidance Using Bhabhatron-3i in a Rural Oncology Centre

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OBJECTIVE

Glioblastoma multiforme is an aggressive primary brain tumor with poor prognosis. Data on the feasibility of cobalt-based IMRT in rural India are limited. To evaluate feasibility, treatment compliance, toxicity profile, and early disease control of IMRT with CBCT guidance using a Bhabhatron-3i unit.



MATERIAL & METHODS

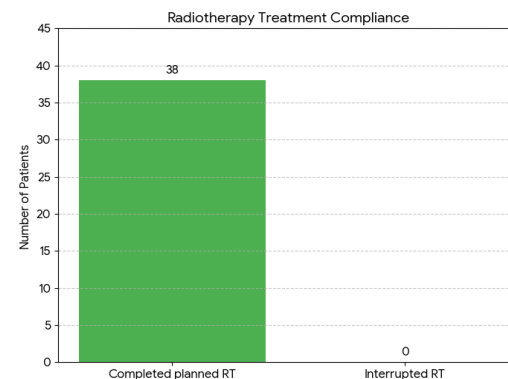
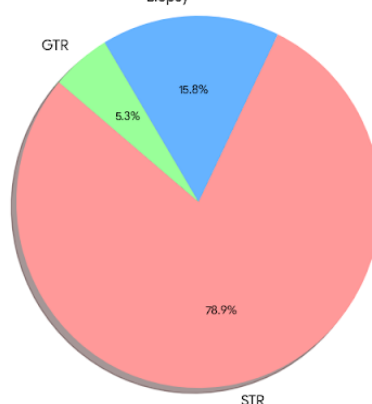
Retrospective observational study of 38 patients aged 40–60 years.
Surgery: GTR – 2, STR – 30, Biopsy – 6.

Radiotherapy: IMRT 60 Gy in 30 fractions using Bhabhatron-3i with CBCT guidance. Concurrent temozolomide given where feasible.

RESULTS

- All patients completed planned radiotherapy without interruption.
- Acute toxicities were predominantly Grade 1–2 with no Grade 4 toxicity.
- Median follow-up was 12 months with median progression-free survival of 8 months.
- Failures were predominantly in-field recurrences.

Extent of Surgery in GBM Patients (n = 38)



CONCLUSION

IMRT with CBCT guidance using a cobalt-based Bhabhatron-3i platform is feasible, safe, and reproducible in a rural oncology setting, enabling delivery of advanced radiotherapy using indigenous, cost-effective technology.

References

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