Conventional and hypofractionated chemoradiotherapy comparable in glioblastoma

> *Findings of: Di Guglielmo FC, Bonaparte I, Davì V, Guida P, Ciliberti MP, Gregucci F, Surgo A, Caliandro M, Carbonara R, Giraldi D, Fanelli V, Surico G, Gentile MA, Calbi R, Internò V, Laera L, Talienti T, Signorelli F, Lombardi G, Fiorentino A. Are conventional and hypofractionated chemoradiotherapy comparable in glioblastoma patients? Clin Transl Oncol. 2025 Nov 2. doi: 10.1007/s12094-025-04107-5. Epub ahead of print. PMID: 41176740.*

Here is an **annotated Vancouver-style summary** of the article by Fiorella Cristina Di Guglielmo et al. titled *"Are conventional and hypofractionated chemoradiotherapy comparable in glioblastoma patients?"* (Clin Transl Oncol. 2025 Nov 2. doi:10.1007/s12094-025-04107-5. PMID:41176740) PubMed +1

Study design & context

- The authors present a retrospective (or mixed) analysis comparing conventional fractionation chemoradiotherapy (CRT) vs hypofractionated CRT in patients with Glioblastoma Multiforme (GBM). PubMed +1
- The setting is a single-centre (or regional) series from the Department of Radiation Oncology, Miulli General Regional Hospital, Acquaviva delle Fonti, Bari, Italy. PubMed
- Key question: whether hypofractionated CRT (shortened schedule) is comparable in outcomes to conventional fractionation CRT in GBM patients.
- The conventional regimen (standard 60 Gy in 30 fractions with concurrent/adjuvant temozolomide) remains the standard for fit patients; hypofractionation has been used in elderly, frail or poor-prognosis patients but less so in general GBM populations.

Key findings

- The authors report that the hypofractionated CRT arm achieved **overall survival (OS)** and **progression-free survival (PFS)** outcomes that were **not inferior**, and in some analyses **favourable**, compared with the conventional CRT arm — though details such as numbers, hazard ratios and formal non-inferiority margins are not fully disclosed (in the available abstract). Oncodaily +1
- The paper highlights that in their hypofractionated cohort (presumably more poor-prognosis) the median OS (~17.5 months) and 2-year OS (~43.3%) were notably higher than prior benchmark hypofractionated trials (~9 months median OS, ~9% 2-yr OS) according to the OncoDaily summary. Oncodaily

- The authors suggest that a schedule of 52.5 Gy in 15 fractions (i.e., hypofractionated) might “potentially become the standard of care not only for elderly/poor-prognosis but also for selected patients” with GBM. Oncodaily +1
- Regarding toxicity, the hypofractionated regimen was reported to be feasible and tolerable (with no unexpected excess toxicity) — though specific comparative toxicity rates versus conventional CRT are not detailed in available summary.

Interpretation & implications

- The findings support the hypothesis that hypofractionated CRT may be **comparable** to conventional CRT in selected patients with GBM, offering a shorter treatment course which may benefit patients in terms of convenience, resource utilisation and potentially quality of life/eligibility.
- If confirmed, this could broaden the adoption of hypofractionation beyond the elderly/frail subgroup, into more general GBM populations — which is particularly relevant in settings where treatment logistics or patient condition favour shorter regimens.
- From a practical standpoint in neuro-oncology: one could consider hypofractionated CRT for patients where the balance of expected benefit vs treatment burden favours a shorter course — but one must still consider patient age, performance status (KPS), extent of resection, MGMT methylation status, and other prognostic factors.
- The improved outcomes seen in the hypofractionated cohort here (median OS ~17.5 m, 2-yr OS ~43.3%) are notable, but as the OncoDaily summary cautions, this may be influenced by selection bias (i.e., patients selected for the hypofractionated arm may differ in key baseline prognostic factors). Oncodaily
- The paper emphasizes that prospective, ideally randomized, data are needed before hypofractionated CRT can be considered standard across all GBM populations.

Limitations & considerations

- The analysis appears retrospective or non-randomised, with inherent risk of selection bias (patients chosen for hypofractionation may have different prognostic features).
- The full data (hazard ratios, confidence intervals, subgroup analyses, MGMT status stratification) are not yet widely available (ahead of print).
- The generalisability to younger, fitter GBM patients treated with maximal resection and “Stupp” protocol (concurrent/adjuvant TMZ + RT) remains to be confirmed.
- Long-term outcomes beyond 2 years, toxicity (especially late neurocognitive/neurological) and quality-of-life comparisons are needed.

Summary sentence

In this Italian series by Di Guglielmo et al., hypofractionated chemoradiotherapy for glioblastoma achieved outcomes comparable to conventional fractionation, with promising median and 2-year survival rates, suggesting that shortened CRT schedules may be an effective alternative in selected patients — albeit requiring confirmation from prospective studies.