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## New chemoradiation standard for elderly patients with glioblastoma

The incidence of glioblastoma is increasing, and this disease portends a dismal prognosis, especially for elderly patients. Although trials performed over a decade ago have established temozolomide chemotherapy and concurrent radiotherapy as the standard treatment, these trials did not assess the role of short-course radiotherapy or include elderly patients (aged >70 years). Elderly patients have been shown to benefit from radiotherapy alone or temozolomide, particularly those with tumours that have methylation of the O<sup>6</sup>-methylguanine-DNA methyltransferase (*MGMT*) gene promoter. Nevertheless, level 1 evidence that the addition of temozolomide to short-course radiotherapy improves survival of elderly patients is lacking.

Now, results of a randomized phase III trial have conclusively shown that short-course radiotherapy plus temozolomide is a beneficial combination for elderly patients with newly diagnosed glioblastoma. In total, 562 patients (median age of 73 years) were randomly assigned to receive radiotherapy alone

(40 Gy delivered in 15 fractions over 3 weeks) or the same course of radiotherapy plus concurrent temozolomide (75 mg/m<sup>2</sup>) for 21 days. The median progression-free and overall survival were significantly improved by adding temozolomide to short-course radiation.

Among patients with methylated *MGMT*, the median overall survival was significantly prolonged (13.5 months versus 7.8 months). Surprisingly, the survival benefit was not limited to patients positive for *MGMT* methylation — a nonsignificant but clinically meaningful benefit was observed in patients with unmethylated *MGMT* (10.0 months versus 7.9 months). Importantly, quality of life was similar among the two groups. James Perry, lead author of the study highlights: “This trial now extends the principle of a chemoradiation strategy to patients 65 years of age and older with newly diagnosed glioblastoma.”

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