Glioblastoma multiforme is one of the most aggressive human cancers, associated with significant neurological morbidity and very poor survival rates [1]. It was almost a decade ago when temozolomide combined with radiotherapy, became established as a standard of care for patients who underwent a surgery for glioblastoma [2], yielding a two-month increase in overall survival compared to radiotherapy alone.

Latest phase II studies with bevacizumab as a single agent or in combination therapy with cytotoxic agents such as irinotecan in patients with grade 3 and grade 4 malignant gliomas [3,4] demonstrated a significant clinical response, leading to its subsequent approval by the FDA [5].

A total of 16 patients from our oncologic unit, with a histologically documented grade 4 glioblastoma multiforme were evaluated. All of them received temozolomide as first-line treatment in combination with radiotherapy, and subsequently experienced disease progression to an unresectable stage, considered either as radiological progression or clinical status deterioration. The median age was 62 (ranging from 43 to 78 years of age) and these patients were eligible for further therapy with irinotecan and bevacizumab. The median number of administered treatment cycles was 7 (ranging from 2 to 12) and the median overall survival of patients receiving a second-line treatment was 5.2 months (from 0.8 to 9 months), without any significant difference in comparison to patients receiving best supportive care [6]. The toxicity of this treatment in this particular subset of generally very ill patients is also a matter of concern. Among the main adverse events we noted three intracranial hemorrhages, four cases of newly diagnosed severe hypertension and two bowel perforations. The overall cost of managing adverse effects of the treatment were relatively high, not to mention the drug’s high price.

Other trials involving other VEGF inhibitors have also failed to prove its benefits in this type of tumour [7], some of them suggesting lomustine as a control arm in future post temozolomide progression trials [7].

We are aware of the fact that the study population of our retrospective analysis is too small to draw conclusions concerning the adoption of a certain regimen as a standard of treatment, yet, it provides a reference that should not be neglected. We strongly believe that, at least while there are no robust phase III trials with quality of life assessments, since we unfortunately do not have any predictive biomarker to guide therapy, the bevacizumab + irinotecan scheme should be very carefully used, if ever, in well selected patients, especially in limited cancer budget countries.

Reference