Nutritional status is a major clinical parameter in multiple cancers. Indeed, nutritional status is a prognostic factor and a predictor of response and toxicity to treatments in breast and lung cancers for instance. To our knowledge, in patients suffering from malignant primary brain tumors, nutritional status has been poorly investigated.

Nutritional status of 26 glioblastoma patients relapsing after a first line of treatment was studied. The body mass index (BMI), the prognostic inflammatory and nutritional index (PINI) and the instant nutritional score (INS) were assessed.

The BMI was abnormal in 12 patients, two were malnourished while 10 were overweight. The BMI was not correlated to age of patients. Overweight status did not impact patient survival but it was associated with reduced performance status. The PINI was abnormal in three patients. Finally, the INS was abnormal in 24 patients, noted 2 (n=22) or 4 (n=4).

Our results were not in favor of systematic nutritional support in patients with recurrent glioblastoma after a first line of treatment. Being overweight does not influence prognosis but may influence performance status. Steroid therapy and chemotherapy (inducing sodium and water retention and lymphopenia) weaken the relevance of BMI and INS for nutritional assessment in patients with recurrent glioblastoma. Further studies using additional nutritional tests in larger, independent and prospective cohorts of patients are warranted to obtain more details.

Copyright © 2013 Elsevier Masson SAS. All rights reserved.

KEYWORDS: Glioblastoma, Glioblastome, Nutritional status, Prognosis, Pronostic, Statut nutritionnel

PMID: 24139245 [PubMed - in process]