Response to “Glioma resection and tumor recurrence: back to Semmelweis”

We would like to thank David Ratel, Boudewijn van der Sanden, and Didier Wion for their comments, and to further develop their interesting hypothesis. Compelling evidence demonstrates that radiotherapy, as well as surgery, improves glioblastoma survival. However, in recent years certain reports have highlighted the contradictory effect of radiotherapy, which also stimulates the expression of inflammatory mediators.1–3 These cytokines can increase the ability of cancer cells to infiltrate the brain. In that case, do we have to abandon glioma surgery and radiotherapy? Certainly not, but we have to seriously take into account these paradoxical effects of brain surgery and radiotherapy. Local therapy applied after tumor resection in the surgical cavity would be a breakthrough strategy if in place of cytotoxic drugs,4,5 molecules inhibiting inflammatory and astrocytic reactions could be released. In this regard, a novel approach could be developed at the crossroads of regenerative medicine (brain repair) and neuro-oncology.

Philippe Menei, Anne Clavreul, Jean Michel Lemée
Department of Neurosurgery, University Hospital of Angers, INSERM U1066, “Micro- et nano-médecine biomimétiques,” Angers, France

Corresponding Author: Philippe Menei Service de Neurochirurgie, CHU d’Angers, 49933 Angers cedex 9, France (phmenei@chu-angers.fr).

References