

## Response to: “rare serious complications of erlotinib therapy”

Quintino Giorgio D'Alessandris · Roberto Pallini

Received: 6 December 2012 / Accepted: 13 December 2012 / Published online: 29 December 2012  
© Springer-Verlag Wien 2012

We thank Dr. Kapoor for his interesting comment to our paper. Data from several clinical trials (reviewed in our article) have shown that erlotinib can be safely administered to glioblastoma (GBM) patients, alone or in association with other drugs. Moreover, the occurrence of rash, which is usually mild, has been linked to a better response to erlotinib therapy in GBM [2, 3]. Nevertheless, uncommon but possibly life-threatening complications of erlotinib therapy are well recognized, including pulmonary toxicity, hepatic impairment, renal failure, diarrhoea, gastrointestinal perforation, ocular disorders, bullous and exfoliative skin disorders, and bleedings in patients treated with warfarin [1]. The safety of treatment was an endpoint of our study. Therefore, according to our study protocol, we performed a complete physical examination, a complete blood cell count, liver and kidney function tests and blood electrolytes, both upon inclusion and then every two weeks during therapy. Moreover, we performed EKG and chest X-ray upon inclusion and then where necessary. In our article, we reported on the first four patients treated with the association of erlotinib and bevacizumab. In these patients we did not observe major adverse events; the only adverse event was grade 1/2 rash, which was successfully treated with topical emollients. Since submission of our paper, we have been treating five additional patients either with erlotinib or with the association of erlotinib and bevacizumab. One of them developed a grade 3 symptomatic pleural effusion six weeks after the beginning of therapy without evidence of pneumonia or interstitial lung disease. The patient recovered

well after a 3-day hospitalization with appropriate medical therapy; erlotinib and bevacizumab were temporarily discontinued and restarted three weeks later.

We conclude that erlotinib, alone or in association with bevacizumab, can safely be administered to GBM patients, but a strict clinical and laboratory follow-up is needed in order to avoid serious adverse events.

**Conflicts of interest** None.

### References

1. European Medicines Agency (2012) Tarceva: EPAR—Product information [http://www.ema.europa.eu/docs/en\\_GB/document\\_library/EPAR\\_-\\_Product\\_Information/human/000618/WC500033994.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/000618/WC500033994.pdf). Accessed 4 December 2012
2. Raizer JJ, Abrey LE, Lassman AB, Chang SM, Lamborn KR, Kuhn JG, Yung WK, Gilbert MR, Aldape KA, Wen PY, Fine HA, Mehta M, Deangelis LM, Lieberman F, Cloughesy TF, Robins HI, Dancesy J, Prados MD, North American Brain Tumor Consortium (2010) A phase II trial of erlotinib in patients with recurrent malignant gliomas and nonprogressive glioblastoma multiforme postradiation therapy. *Neuro Oncol* 12:95–103
3. Sathornsumetee S, Desjardins A, Vredenburgh JJ, McLendon RE, Marcello J, Herndon JE, Mathe A, Hamilton M, Rich JN, Norfleet JA, Gururangan S, Friedman HS, Reardon DA (2010) Phase II trial of bevacizumab and erlotinib in patients with recurrent malignant glioma. *Neuro Oncol* 12:1300–1310

Q. G. D'Alessandris · R. Pallini (✉)  
Department of Neurosurgery, Università Cattolica  
del Sacro Cuore, Largo Agostino Gemelli 8,  
00168 Rome, Italy  
e-mail: pallini@rm.unicatt.it