



ADVERSE DRUG REACTIONS, INCLUDING SJS, TEN

ERYTHEMA MULTIFORME ASSOCIATED WITH PHENYTOIN AND CRANIAL RADIATION THERAPY (EMPACT SYNDROME) IN A PATIENT WITH GLIOBLASTOMA MULTIFORME

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Background: In the past twenty years it has been increasingly noticed that erythema multiforme (EM)-like lesions concentrating in the area exposed to radiotherapy can be seen in patients simultaneously receiving phenytoin, representing the so-called EMPACT (EM associated with phenytoin and cranial radiation therapy) syndrome.

Observation: A 72-year-old female patient with glioblastoma multiforme presented with an erythematous rash starting from the head&neck region and spreading to the trunk four days after cranial radiotherapy and oral temozolomide 130 mg/day were initiated. She had also been using phenytoin 100 mg/day p.o. for one month as a prophylactic anticonvulsant therapy. Dermatologic examination revealed numerous reddish targetoid macules and papules on the head&neck area extending to the trunk. Erosive lesions were seen on lips, the labial mucosa and hard palate. Histopathological examination was consistent with EM. The Naranjo probability score was 6 for phenytoin, suggesting a probable causal relationship between phenytoin and the eruption, ie, the EMPACT syndrome. Temozolomide was not a known inducer of this reaction. Phenytoin was replaced by levetiracetam and the lesions were treated with topical corticosteroids. Subsequently, the skin lesions regressed markedly within 2 weeks. The diagnosis of EMPACT syndrome was made according to history, clinical and histopathological findings, the Naranjo score, and resolution of lesions after phenytoin was stopped while the patient continued to take temozolamide.

Key message: EMPACT syndrome is characterized with EM-like lesions starting from sites of radiotherapy in patients receiving phenytoin. When left untreated, the eruption may spread out and potentially progress to EM major or Stevens-Johnson syndrome. Use of prophylactic anticonvulsants in patients with intracranial malignancy is fairly common, therefore skin lesions in patients receiving concomitant cranial radiotherapy should alert physicians to a possible diagnosis of this entity. Besides, levetiracetam might be an appropriate alternative to phenytoin in patients who need anticonvulsant therapy whilst on radiotherapy.

