CORRESPONDENCE

Case Report of a Generalized Seizure Related to Paclitaxel Infusion

Hypersensitivity reactions to paclitaxel have been reported to occur in approximately 10% of patients; however, less than 1% of patients experience severe hypersensitivity reactions *(1)*. We report only the second published case of a generalized seizure occurring in the context of a paclitaxel reaction. In 1989, McGuire et al. *(2)* described a patient who developed a grand mal seizure 2 hours after the commencement of the first infusion of paclitaxel. The infusion was subsequently recommenced, resulting in prolonged seizures. The adverse effect was presumed to be caused by paclitaxel in view of the temporal relationship.

We now describe a 57-year-old woman who was diagnosed with a primary peritoneal cancer. She underwent debulking surgery, with the histology confirming serous papillary carcinoma. Her postoperative recovery was unremarkable apart from a mild wound infection requiring oral antibiotic therapy. The only clinically significant problem in her medical history was mild asthma. On the tenth postoperative day, she commenced chemotherapy with carboplatin and paclitaxel. She was given 20 mg of dexamethasone 12 hours and 6 hours before receiving the paclitaxel. She also received 10 mg of dexamethasone, 50 mg of ranitidine, 12.5 mg of phenergan, and 5 mg of tropisetron before receiving the paclitaxel infusion. She was to receive paclitaxel at a dose of 175 mg/m^2 (268 mg total dose based on a body surface area of 1.53 m^2).

Five minutes after the start of the paclitaxel infusion, the patient reported chest tightness and flushing, followed shortly by a generalized tonic clonic seizure. The patient's blood pressure dropped from the baseline level of 140/70 to 80/60 mmHg. The seizure was associated with urinary incontinence and tongue biting. The paclitaxel infusion was stopped immediately, and the patient was given oxygen. The seizure stopped spontaneously after several minutes. After this treatment, the patient was disorientated for approximately 5 minutes but subsequently returned to normal.

The patient then had a normal complete neurologic examination. A routine full blood cell count and a complete blood chemistry analysis revealed no substantial abnormalities. An electroencephalogram and magnetic resonance imaging scan of the brain were also performed, both of which were normal. She was then treated with single-agent carboplatin and has not had further neurologic events. She has not been rechallenged with a taxane.

To the best of our knowledge, this is the first reported case of a generalized seizure occurring as an immediate reaction to a paclitaxel infusion. In view of the temporal relationship and the associated flushing and chest tightness, it seems likely that this seizure was directly related to the paclitaxel infusion. Although rare, major reactions to paclitaxel may be potentially life threatening and require early recognition and treatment.

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REFERENCES

(1) Markman M, Kennedy A, Webster K, Kulp B, Peterson G, Belinson J. Paclitaxel-associated hypersensitivity reactions: experience of the gynecologic oncology program of the Cleveland Clinic Cancer Center. J Clin Oncol 2000; 18:102–5.

(2) McGuire WP, Rowinsky EK, Rosenshein NB, Grumbine FC, Ettinger DS, Armstrong DK, et al. Taxol: a unique antineoplastic agent with significant activity in advanced ovarian epithelial neoplasms. Ann Int Med 1989;111: 273–9.

NOTES

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