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## Two Cases with Carbamazepine-induced Unusual Side Effects -Encephalopathy and Myoclonic Jerks-

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Central nervous system toxicity is the most commonly recognized problem during treatment with carbamazepine (CBZ). The most common side effects of CBZ are drowsiness, incoordination, and vertigo. However, unusual conditions such as movement disorders, seizure aggravation, and encephalopathy have also been attributed to CBZ therapy. In case 1, cognitive dysfunction and exacerbation of preexisting gait disturbance were observed in a 63-year-old female who had frontal lobe epilepsy, schizencephaly, and lissencephaly treated with CBZ. The neurological symptoms were resolved 24 hours after the withdrawal of CBZ and induced with the reintroduction of CBZ. In case 2, myoclonic jerks occurred in a 37-year-old female when CBZ was readministered after a 4-day-withdrawal period of CBZ. The myoclonic jerks disappeared 12 days after CBZ was discontinued. In both cases, plasma CBZ levels were within the therapeutic range. We report two cases with encephalopathy and myoclonic jerks as unusual side effects of CBZ, with the plasma levels of CBZ being within the therapeutic range.

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**Key Words :** Carbamazepine, Encephalopathy, Myoclonic jerks, Side effects

Carbamazepine(CBZ)

가 1  
63 가 1  
(asterixis),  
CBZ 가  
가  
CBZ CBZ 1000 mg  
1-3 CBZ  
(myoclonic jerk)  
grade IV+ 가

가 (dystonia)  
(lissencephaly),  
(schizencephaly), (septum pellu-  
cidum)

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CBZ 2

CBZ 1000 mg 가 가 4

(Fig. 1). 6 CBZ 10.8 µg/mL 가 (confusion) 7

CBZ 8 가 가

11 CBZ 600 mg 가 13 가

CBZ 8.15 µg/mL (Fig. 1). 13 가

CBZ 15 valproic acid(VPA) 가 VPA 900 mg

2

37 가 8 31 33 CBZ 2

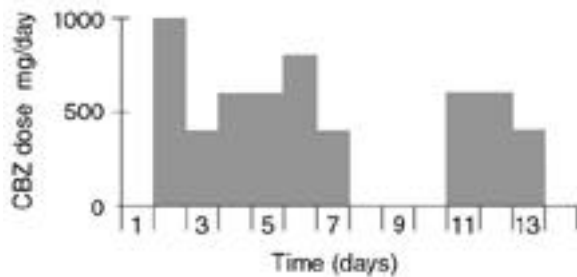
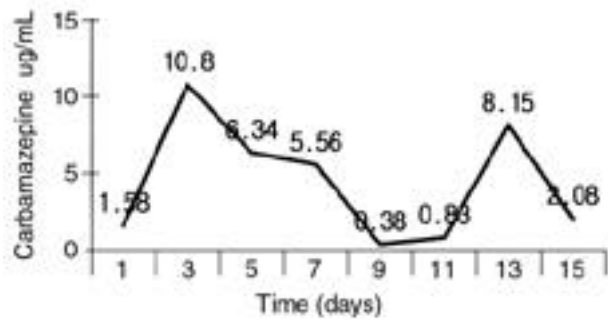
600 mg 4 CBZ 1200 mg

CBZ 3 CBZ 2.2 µg/mL , CBZ 9.97 µg/mL . CBZ (myoclonic jerk) , CBZ

2 clonazepam 1 mg , 7 CBZ 가 4 1 CBZ 600 mg

CBZ 30% 가 , 9 µg/mL 8 µg/mL

Smith<sup>2</sup>



**Figure 1.** Plasma concentrations and dosages of carbamazepine and untoward symptoms in case 1. Even though concentrations remained within therapeutic range, administration of carbamazepine produces untoward symptoms and symptoms disappear after withdrawal of carbamazepine.

phenytoin CBZ 66 가 CBZ

2.2 µg/mL , CBZ CBZ , Salzman

Pippenger<sup>3</sup> CBZ 16 10.1 µg/mL , Aguglia<sup>5</sup> CBZ (tic-like movements)

CBZ CBZ

Dhuna<sup>6</sup> CBZ CBZ , 가 carbamazepine-10,11-epoxide(CBZ-E) CBZ CBZ-E<sup>7-8</sup> CBZ-E<sup>9</sup> CBZ CBZ-E가

11 CBZ CBZ-E  
 10 Gillhan  
 CBZ  
 CBZ-E CBZ-E가  
 phenytoin phenobarbital  
 epoxidation VPA CBZ-E  
 1 CBZ  
 CBZ 24  
 CBZ 2 4 CBZ  
 4  
 12 CBZ  
 , CBZ-E  
 CBZ  
 가  
 , CBZ  
 CBZ-E 가 , CBZ  
 CBZ CBZ-E

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