Carbamazepine (Tegretol)-Induced Thrombocytopenia

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We presently report on a case of severe carbamazepine (Tegretol)-induced thrombocytopenia followed by complete recovery after cessation of this drug. A strongly positive migration inhibition factor (MIF) test with the patient’s lymphocytes was found and definitely established the causality of the above-mentioned complication.

Case Report

A 31-year-old epileptic female was admitted because of diffuse purpura and ecchymoses. She was treated in the past with clonazepam, phenytoin sodium and phenobarbitone.

2 months prior to admission the treatment with phenytoin sodium was discontinued and instead carbamazepine 0.4 mg/day was administered. The peripheral blood count prior to this change of therapy was as follows: hemoglobin 12.0 g/dl, white blood cells (WBC) 6,800/mm³ with a normal differential count and platelets 230,000/mm³.

The physical examination was unremarkable except for diffuse purpura and ecchymoses. The hematological investigation revealed hemoglobin 12.6 g/dl, WBC 7,100/mm³ with a normal differential count and platelets 5,000/mm³. A bone marrow biopsy showed numerous inactive mega-karyocytes without budding of platelets. The migration inhibition factor (MIF) test to carbamazepine was strongly positive, while it was negative to clomazepam, phenytoin and phenobarbitone.

Carbamazepine was immediately discontinued and treatment with phenytoin sodium 200 mg/day was reinstated. Within a week the purpura and ecchymoses vanished and the platelet count rose to 210,000/mm³.

Discussion

To our knowledge, carbamazepine-induced thrombocytopenia was not yet documented by using the MIF test. Although rarely encountered [2-5], this complication may be hazardous considering the potential danger of intracranial bleeding especially in epileptic patients.

References
