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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 megakaryocytes without budding of platelets. The migration inhibition factor (MIF) [1] test to carbamazepine was strongly positive, while it was negative to clonazepam, phenytoin and phenobarbitone.

Carbamazepine was immediately discontinued and treatment with phenytoin sodium 200 mg/day was reinstituted. 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

Kuritsky, A.; Livni, E.; Munitz, H.: Cell mediated immunity to human basic myelin protein in schizophrenic patients. J. neurol. Sci. 30: 369-372 (1976).

Pearce, J.; Ron, M.A.: Thrombocytopenia after carbamazepine (Letter). Lancet ii: 223 (1968).

Jensen, O.M.: Thrombocytopenic purpura due to carbamazepine. Ugeskr. Læg. 139: 1442 (1972).

Davis, E.H.: Clinical trials of Tegretol in trigeminal neuralgia. Headache 91: 77-82 (1969).

Killman, J.M.: Tegretol in trigeminal neuralgia with special references to hematopoietic side effects. Headache 9: 58-63 (1969).