

Tegretol Excipient-Induced Allergy

To the Editor.—Allergies to drugs are usually caused by the active ingredient. However, inert excipients (coloring agents, preservatives, and sweeteners) may also sometimes cause allergic reactions.¹⁻⁴ The incidence of these may be increasing, because excipients are now usually chemically produced synthetics, not naturally derived substances. We report a patient with epilepsy who developed sensitivity to FD&C Red 40 in the Tegretol brand of carbamazepine.

Report of a Case.—A 56-year-old woman had had frequent complex partial and rare secondarily generalized seizures for 5 years. Control was poor with therapeutic plasma levels of phenytoin, primidone, and phenobarbital. Treatment with the Tegretol brand of carbamazepine (Ciba-Geigy) was started, and other drugs were withdrawn. Four weeks later, she complained of rhinorrhea, tearing, and nasal stuffiness that consistently occurred within 20 minutes after ingesting a Tegretol tablet. Generic carbamazepine (a white tablet made by Bioline MAF) was substituted at the same dose, and symptoms promptly resolved. One month later, the patient gave informed consent to a test dose of Tegretol to confirm the allergy. Ten minutes after a single 200-mg tablet, she became anxious, felt "funny," and developed nasal stuffiness and conjunctival injection. Symptoms resolved in 30 minutes. She continues to take generic carbamazepine and has been seizure free.

Comment.—Login⁴ has also reported an unfavorable response to the pink component of the Tegretol brand of carbamazepine consisting of "feeling uptight, tenseness of the scalp, feeling veins and arteries popping out of the skin, coughing, dry heaves, and a crawling and itchy feeling in the skin, but without rash."

Although we generally prefer brand-name antiepileptic drugs because of their reliable bioequivalence⁵ and easy identification by physicians and patients, there are occasions, as illustrated by this case, when a generic preparation is desirable. We advised our patient to obtain carbamazepine

from the same manufacturer each time to maintain consistent blood levels. We anticipate this will allow continued seizure control without sniffles.

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1. Smith JM. Allergic reactions to drug excipients. *Practitioner*. 1987;231:579-583.
2. Pollock I, Young E, Stoneham M, Slater N, Wilkinson JD, Warner JO. Survey of colourings and preservatives in drugs. *BMJ*. 1989;299:649-651.
3. Bell RT, Fishman S. Eosinophilia from food dye added to enteral feedings. *N Engl J Med*. 1990;322:1822.
4. Login IS. Unfavorable response to pink Tegretol tablets. *Arch Neurol*. 1988;45:831-832.
5. Sachdeo RC, Belenkiuk G. Generic versus branded carbamazepine. *Lancet*. 1987;1:1432.

Apneic Oxygenation in Apnea Tests

To the Editor.—I read with great interest the article "Apneic Oxygenation in Apnea Tests for Brain Death: A Controlled Trial" in the October issue of the ARCHIVES' The "Patients and Methods" section mentions that "all patients were deeply comatose with absent brain-stem reflexes and no spontaneous respirations." If all of these patients had already been declared legally brain dead (including proper apneic oxygenation), then it should have been explicitly stated. If that were not the case, how was it ethically (or legally) permissible to disconnect respirators from patients who were not legally brain dead? It is not at all surprising that in that group significant hypoxia developed and one patient had cardiac arrest!

New York State health regulations require that families be notified when brain death is being confirmed. Was this study performed with familial consent? A simply explanatory sentence in this otherwise very interesting article could avoid a serious misunderstanding.

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1. Marks S, Zisfein J. Apneic oxygenation in apnea tests for brain death: a controlled trial. *Arch Neurol*. 1990;47:1066-1068.

In Reply.—Dr Keilson asks if our patients were legally alive during the apnea tests. A brain dead patient is biologically dead at the moment of brain failure but is legally alive until brain failure has been confirmed by an apnea test. Our patients were, therefore, legally alive during the apnea tests.

Dr Keilson asks if it is permissible to disconnect the ventilator on a patient who is legally alive. Apnea testing, including ventilator disconnect, is required by all currently accepted guidelines for determining brain death.

Dr Keilson is not surprised that our nonoxygenated patients became hypoxic and that one patient had cardiac arrest. We share his lack of surprise. Nonetheless, apnea tests are often performed without apneic oxygenation¹ and transplantable organs have been lost due to cardiac arrest. We hope that this study encourages all physicians to perform apnea tests with apneic oxygenation.

We do not believe that apnea testing was the cause of death in our patient who had cardiac arrest. The failure of this patient to breathe despite the profound stimuli of hypercarbia and hypoxia indicates that biologic death preceded the apnea test and was confirmed by the test.

Dr Keilson asks if the study was performed with familial consent. All families were notified (as per New York State health regulations) that brain death evaluations were in progress. Consent for experimentation was not obtained because the study was nonrandomized and observational. We compared two techniques of apnea testing that were in use at our hospital at the time of the study.

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