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An Allergic Reaction to Intraarterial Nonionic Contrast Material

To the Editor: We report an incident of an allergic reaction to a small dose of intraarterial nonionic contrast material that was administered during cerebral angiography in a patient premedicated with steroids and antihistamines.

A 23-year-old man with epilepsy was referred for cerebral angiography and Wada testing. These were performed for the purpose of language and memory testing before temporal lobectomy for the treatment of epilepsy. The patient had asthma and a history of bronchospasm during an intravenous (IV) injection of contrast medium for IV urography a few years ago. Bronchospasm that occurred at that time was appropriately treated with medication. Because of the patient's history of an allergic reaction to contrast medium, he was premedicated with 50 mg of prednisolone by mouth (PO) for these tests. He received a total of three doses in the 24 hours before angiography. In addition, he received 50 mg of Benadryl PO approximately 2 hours before the procedure.

During cerebral angiography, the right common carotid artery was catheterized by using a 5F vertebral curved catheter. Iohexol (Omnipaque; Nycomed, Princeton, NJ; 3 mL with 300 mg of iodine per milliliter) was injected into the right common carotid artery to confirm the position of the catheter. Within minutes, the patient complained of a tight sensation in his throat, difficulty with breathing, and itching. A papular rash developed over his face and hands. At that moment, the procedure was halted, and he was given an Albuterol inhaler and oxygen. His vital signs, including his blood pressure and pulse rate, were stable, and oxygen saturation was within normal limits. The patient fully recovered from these symptoms within

5 minutes. The procedure was then continued with the use of gadolinium-based contrast material (Omniscan; Nycomed; 287 mg/mL) instead of iohexol. No further complications occurred.

Allergic reactions to IV contrast agents are well known. These reactions are more common in individuals with asthma, those with a history of allergic reaction to contrast material, and those who are debilitated or in a medically unstable condition (1). Anaphylactic reactions to IV Iopamiro despite pretreatment are reported (2). Also reported is a fatal reaction after intraarterial injection of nonionic contrast medium (3). However, to our knowledge, an allergic reaction to an intraarterial nonionic contrast agent in a premedicated individual has not been reported.

Our patient developed an allergic reaction to a small dose of intraarterial contrast agent, despite premedication. This occurrence again illustrates that the development of an allergic reaction is not necessarily related to the dose of the contrast agent or the route of administration.

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