
Researchers Uncover Chemical Clues to Anaphylaxis

Foods Matter, March 2008 - Researchers have found two chemical clues that may help them tame sudden, severe allergic reaction (anaphylaxis). The first clue: people with anaphylaxis have high blood levels of an inflammatory chemical called platelet-activating factor (PAF). The second clue: anaphylaxis patients have low blood levels of PAF acetylhydrolase, an enzyme that breaks down PAF. Those patterns may lead to new drugs to block PAF and treat anaphylaxis, Canadian researchers report ...

The scientists compared blood samples from anaphylaxis patients to those from people without anaphylaxis. They concluded that too much PAF and too little PAF acetylhydrolase were a dangerous combination, and the greater the gap between levels of the two chemicals, the greater the risk to the anaphylaxis patient.

But PAF didn't cause anaphylaxis by itself. The patient also had to come in contact with his or her allergen, which for some patients was peanuts or insect stings. Peter Vadas MD PhD and colleagues report their findings in The New England Journal of Medicine. Vadas works in Toronto at St Michael's Hospital.

The study may also lead to better tests to diagnose anaphylaxis, writes A. Wesley Burks, MD, in an editorial published with the study. Burks works in the allergy and immunology division of Duke University Medical Center's pediatrics department.

Reference:

Vadas, P. The New England Journal of Medicine, Jan. 3, 2008; vol 358: pp 28-35.

Burks, A. The New England Journal of Medicine, Jan. 3, 2008; vol 358: pp

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