Correspondence

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Can Acetaminophen Cause Hemolysis in G6PD Deficiency?

C.S.	Christos S.	Bartsocas
J.D.	Joseph D.	Schulman
L.	Laurence	Corash

Christos S. Bartsocas, Joseph D. Schulman, Laurence Corash, Second Department of Pediatrics, University of Athens, Athens-617 (Greece); National Institutes of Health, Bethesda, Md. (USA)

To the Editor,

Acetaminophen (paracetamol, Tylenol) is considered a safe antipyretic-analgesic medication in Mediterranean-type glucose-6-phosphate dehydro-genase (G6PD) deficiency [1]. We wish to report an acute hemolytic episode which may be linked to this drug in a G6PD-deficient subject.

Case History

The patient, a Greek male now 39 years old, was found to have G6PD deficiency following an acute hemolytic episode 10 years ago. He manifested two other similar episodes following an 'antiviral' medication at the age of 31 and after inserting a suppository containing aminopyrine 2 years later. Because of mild chronic hemolysis and three previous hemolytic episodes, he volunteered to participate in a study of the effect of vitamin E in G6PD-deficient individuals [2]. He was given daily vitamin E, 800 IU orally, between May 1978 and August 1980. His hemoglobin had increased from 13.8 to 15.1 g/dl after 1 year of vitamin E treatment and his reticulocyte count had dropped from 2.5 to 1.3%. No hemolytic episodes occurred during this period. Because of a mild respiratory infection a physician prescribed paracetamol, 500-mg tablets, in December 1980. 1 h after taking the first tablet he felt weak and nauseated and vomited, symptoms he had had with previous hemolytic episodes. His urine became red the same evening and he was severely jaundiced the next morning. His indirect bilirubin was 10.5 mg/dl, the hemoglobin 8.0 g/dl, the reticulocyte count 8% and the urine strongly positive for hemoglobin. These symptoms subsided gradually over 1 week.

Discussion

Although no other medications were taken and there was no contact with fava beans or naphthalene, we cannot be sure that paracetamol caused the acute hemolysis. Nonetheless, we report this episode as a probable case of paracetamol-induced hemolysis in a G6PD-deficient individual.

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