

AMI after low-dose IV epinephrine for anaphylaxis

To the editor: The letters^{1,2} in September's issue of *CJEM* responding to our Case Report on the use of IV epinephrine in anaphylaxis³ raise interesting questions. We agree that a 10-hour onset delay seems long, but penicillin remains a more likely cause of anaphylaxis than ibuprofen, which the patient had taken in the past, and regardless of the inciting agent, the case illustrates important points. We did not suggest that our patient suffered a large myocardial infarction. A troponin elevation to 2–3 times normal does not suggest major damage, but is consistent with infarction. Based on the minor nature of this infarct and its presumed pathogenesis, our cardiologists chose to do a CT angiogram because they believed the risks of invasive angiography were greater than the potential benefits in this young person without concomitant disease. All acute coronary syndromes (ACS) protocols recommend ASA in the presence of ST elevation; however, if in this situation (anaphylaxis with epinephrine-induced coronary vasospasm) occurs in the future, we would not necessarily administer ASA, since ASA and NSAIDs can exacerbate anaphylaxis.

We have no specific comments about Dr. Shah's letter² as it illustrates the reason we wrote this case report. Our hope was that it would educate others about the potential harm associated with intravenous (IV) epinephrine. (This patient has been advised that she is never again to receive epinephrine.) We have found the same opinion split in our emergency department community and were surprised to find no definitive answer in the literature. We agree that, in all but extreme cases, intramuscular epinephrine is the correct choice and that the lateral thigh is the correct place. We recognize that this case report does not rule out a role for IV epinephrine in extreme anaphylaxis and shock, although the IV route is associated with a shorter action duration. (It is interesting to speculate that the shorter IV duration may have been less dangerous in a case like this.)

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References

1. Maddison G. AMI after epinephrine [letter]. *Can J Emerg Med* 2006;8(5):315.
2. Shah A. AMI after epinephrine [letter]. *Can J Emerg Med* 2006;8(5):315-6.
3. Shaver KJ, Adams C, Weiss SJ. Acute myocardial infarction after administration of low-dose intravenous epinephrine for anaphylaxis. *Can J Emerg Med* 2006;8(4):289-94.

Erratum

In the Pediatrics Original Research article published in the July 2006 issue of *CJEM*, the Competing Interests statement was incomplete. There were no competing interests declared by the author.

Reference

1. Taylor BW. Demography of pediatric emergency care in Halifax, Canada. *Can J Emerg Med* 2006;8(4):269-74.

Letters will be considered for publication if they relate to topics of interest to emergency physicians in urban, rural, community or academic settings. Letters responding to a previously published *CJEM* article should reach *CJEM* head office in Vancouver (see masthead for details) within 6 weeks of the article's publication. Letters should be limited to 400 words and 5 references. For reasons of space, letters may be edited for brevity and clarity.

Les lettres seront considérées pour publication si elles sont pertinentes à la médecine d'urgence en milieu urbain, rural, communautaire ou universitaire. Les lettres en réponse à des articles du *JCMU* publiés antérieurement devraient parvenir au siège social du *JCMU* à Vancouver (voir titre pour plus de détails) moins de six semaines après la parution de l'article en question. Les lettres ne devraient pas avoir plus de 400 mots et cinq références. Pour des raisons d'espace et par souci de concision et de clarté, certaines lettres pourraient être modifiées.