Reviewer's report

Title: Motorbike Rider With Ventricular Arrhythmia - Suspected Association to Air Pollution

Version: 2 Date: 22 January 2008

Reviewer: Wayne Cascio

I am familiar with the literature and believe that this case meets one of the 7 criteria for evaluation in the journal: Presentations, diagnoses and/or management of new and emerging diseases

Has the case been reported coherently?: Yes

Is the case report authentic?: Yes

Is this case worth reporting?: Yes

Is the case report persuasive?: Yes

Does the case report have explanatory value?: No

Does the case report have diagnostic value?: No

Will the case report make a difference to clinical practice?: Yes

Comments to authors:

The report is a compelling example of ambient air pollution associated cardiac arrhythmia. Yet, there are still some other considerations to consider. Carbon monoxide exposure has been linked to an increase in ventricular arrhythmia. A comment should be made indicating that CO exposure might be the driving the appearance of the VPBs rather than combustion related particulate matter. Because no exposure assessment was made it is not possible to determine the relative contribution of these pollutants to the adverse health effect. Moreover, while the subject did not report feeling stressed one cannot exclude the possibility that noise and stress contributed to the finding. Only measures of cortisol would settle this issue. For this reason salivary cortisol is often used in clinical studies to assess this possibility. A comment should be made that the association might be related to the stress of the motor bike ride.

What next?: Accept after minor revisions

Quality of written English: Acceptable