Reviewer’s report

Title: Ozone exposure is associated with acute changes in inflammation, fibrinolysis, and endothelial cell function in coronary artery disease patients

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Reviewer: M Campen

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Mirowsky and colleagues present findings from a panel study of 13 men with diagnosed CAD in relation to ozone exposure. Specifically, the authors note changes in arterial elasticity and diameter, PAI-1, and inflammatory cells in association with ozone levels. The study is plainly communicated and is easy to follow. Several concerns exist which I believe need to be addressed.

1. In general, it is very difficult to understand the statistical conclusions. For certain correlative measures (ozone monitoring stations), the authors indicate p-values, but that is never again seen. Are the arterial and circulatory changes significant or not?

2. For the lag data presented in most figures, there does not seem to be much change from day to day. I would encourage the authors to test a lag -1 (negative 1) or -5 day comparison to show some temporal congruity with exposures.

3. The literature review seems a bit misbalanced and insular. It is odd that HRV is such a point of discussion rather than the findings you actually include in the main text. There are many studies on ozone and inflammatory markers in cohort and panel studies. There are far more pertinent studies of arterial function and ozone in rodents and in humans to cite.

4. Using regression to eliminate the possibility that PM2.5 was a confounder was a good idea. I would also encourage testing for ambient temperature.

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