

CORRESPONDENCE

‘Problematic methodology’

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After reading the ‘Coronary artery disease and hypertension in a non-selected spinal cord injury patient population,’ we are concerned with the authors’ methodological approach.

In a well-researched introduction, Aidinoff and colleagues¹ comment on the uncertainty surrounding the prevalence of coronary artery disease (CAD) in individuals with chronic spinal cord injury (SCI), rightly arguing that certain studies document high rates of stress test positivity, whereas others are relatively reassuring. They then present their own work, in which review of the medical records of people with SCI revealed an essentially average risk of CAD.

Studying CAD in people with SCI is critically important, but data stemming from medical record reviews and/or patient interviews are fundamentally untrustworthy. First, most medical evaluations for CAD are precipitated by ‘typical’ or ‘atypical’ angina. As we have no idea how coronary ischemia feels to people with absent or impaired sensation, how are we to know that people with SCI are being appropriately evaluated for even symptomatic heart disease? Second, chronic CAD—particularly in the setting of collateral arterial flow—may not appear on electrocardiography or enzymatic analysis. Hence, although the authors argue that concern over underestimation of CAD can be contradicted by their ‘relatively frequent routine ECG tracings and blood enzymes examination,’ even these scrupulous health-care providers may have missed clinically significant CAD. Third, as we do not routinely screen people with SCI for arterial disease, we can easily imagine how physicians caring for injured individuals (and, hence, those individuals, themselves) may be unaware of progressive and even accelerated atherogenesis. Finally, a recent study of Americans living with SCI revealed that 88% and 85.2%, respectively, had been examined by their primary-care physicians while fully clothed and seated in their wheelchairs.² It is clear, then, that many people

with SCI receive inadequate physical examinations by their medical teams, and that their likelihood of being assessed for slowed peripheral blood flow, vascular bruits or abdominal aneurysms (all of which may lead to evaluations for CAD) is quite low.

A great many studies purporting to describe rates of CAD among people with SCI utilize data that are inadequately objective and unmoored from patients’ actual anatomy. As heart disease emerges as one of the lead causes of mortality in chronic SCI,³ our investigations and reporting must be both valid and clinically and physiologically meaningful.

COMPETING INTERESTS

The authors declare no conflict of interest.

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- 2 Stillman MD, Frost KL, Smalley C, Bertocci G, Williams S. Health care utilization and barriers experienced by individuals with spinal cord injury. *Arch Phys Med Rehabil* 2014; **95**: 1114–1126.
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