Sudden Cardiac Death Among Women in the United States

To the Editor:

The recent article by Albert and colleagues is on a topic of much interest because, as noted by the authors, the rate of sudden cardiac death among middle-aged women is increasing. The authors investigated relationships between potential risk factors for cardiovascular disease and sudden death in the Nurses’ Health Study. I cannot understand why the authors failed to comment on or even discuss the potential role of medications or pharmacologically active agents that the women with sudden death may have been consuming. An increased risk of cardiac arrhythmias with noncardiac as well as cardiac drugs that prolong repolarization has been demonstrated in women both with and without cardiac disease. Although it appears that medication information may not have been routinely collected during the Nurses’ Health Study, the authors state that they reviewed medical records of all the women with sudden death, as well as reports from next of kin for the current investigation. Information on medication and nutraceutical use would be of great value in elucidating potential causes for sudden death in the women studied.

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Response

We agree with Dr Schwartz that medications and/or pharmacologically active substances may play a role in sudden death risk among women. As Dr Schwartz points out, women do appear to be more susceptible to the effects of QT-prolonging drugs, and there is also a well-known female predisposition to drug-induced torsades de pointes. As Dr Schwartz surmises, information on these types of medications is not routinely collected as part of the Nurses’ Health Study. Also, given that exposure information is updated every 2 years, the often transient duration of use of these types of medications (eg, antibiotics, antihistamines) and the expectation that the highest risk of sudden cardiac death would be soon after initiation of the drug, our ability to accurately classify exposure in this setting would be quite limited. Unfortunately, complete data on current medications are also rarely available from medical and nonmedical sources at the time of death. Most of the deaths occurred out of the hospital, and therefore, much of our medical information comes from emergency medical technician reports and emergency room records, which usually do not contain detailed information on medications. We also interview the next of kin who provide details on the circumstances surrounding the death but are often unaware of the specific medications and/or nutraceuticals that the nurse was taking. Even if complete information on medications and supplements were available from medical records, information from a comparison group would not be available. Therefore, although this is an important hypothesis, we were unable to address these specific issues in this population.

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