Cardiovascular health in African Canadians

Can we confidently make clinical decisions about African Canadians based on US data?

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As a health care professional of African descent practising in Canada, I often wonder how studies describing morbidity and mortality in African Americans extrapolate back to their Canadian counterparts. Consider hypertensive complications in blacks. Multiple studies have shown that hypertension is not only more common in African Americans but it is also more severe. Although reasons for this are still not completely understood, important risk factors discussed in the current literature include lower socioeconomic status and ingestion of high sodium/low potassium food. Even treatment modalities show variable effectiveness depending on the patient's race. Diuretics, as an example, have been shown to be the most effective in black Americans, while the very same agents were the least effective in white Americans. Interestingly, these findings support the hypothesis that since African Americans ingest more sodium and in turn retain more water, they might benefit more from a pill that reduces the amount of water on board.

Indeed, clinical decisions are based on level A evidence; but what if the populations from which the data were derived are arguably different from the population in question? Should the physician in Vancouver start the second-generation Jamaican Canadian on a diuretic instead of an ACE inhibitor? If you had asked me last week, I would have answered yes—because elegant studies have shown improved patient outcomes. But if we hark back to some of the hypothesized reasons for hypertensive differences between whites and blacks in the US, one can note that the experience of the black American is actually quite different than that of the black Canadian. The African American ghettos, which at least partially account for lower socioeconomic status, are almost nonexistent in Canada. Similarly, the average dietary intake of African Americans is likely to also differ significantly. Merriam-Webster's dictionary defines "soul food" as "chitterlings, ham hocks, and collard greens… traditionally eaten by southern black Americans." Of course not all African Americans consume such diets, but this begins to illustrate some of the differences between African Americans and African Canadians with regard to dietary intake.

Are African Americans the same as African Canadians? If not, can we confidently make clinical decisions by extrapolating from one population to the other? Does it even make a difference? If it is accepted that hypertension is a disease that carries a different course in black Americans[1] and that factors such as socioeconomic status as well as dietary intake of blacks in America play important roles in the manifestation of cardiovascular disease,[2] then I suspect that the clinical judgment that has been employed to date may not be as generalizable as originally postulated. For the time being it is the best data that we have, but there are scores of research opportunities at this juncture. For example, review of the world literature from 1950 to present using the keywords "African Canadian hypertension" yielded only one relevant result (an article entitled "Racial variability of glaucoma risk factors between African Caribbeans and Caucasians in a Canadian urban screening population"). Could this be an opportunity for a Canadian first: a multicentre randomized controlled trial investigating antihypertensives in Canadian patients of African descent? It will most certainly be interesting to see if future studies investigating hypertensive disease in black Canadians will result in management strategies that differ from those used in black Americans.

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