



COMMENT ON SHAH ET AL.

Cardiovascular Complications and Mortality After Diabetes Diagnosis for South Asian and Chinese Patients: A Population-Based Cohort Study. *Diabetes Care* 2013;36:2670–2676

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Shah et al. (1) suggest that the consequences of new-onset diabetes may be less severe in South Asian and Chinese patients and accounts for equivalent (South Asians) or lower (Chinese) risks of cardiovascular disease compared with Europeans with diabetes. They claim that missing data on key cardiovascular disease risk factors, in particular smoking, could not account for such ethnic differences. These assertions may be overstated.

In the British Southall And Brent REvisited (SABRE) population-based cohort, with detailed risk factor assessment, diabetes, whether newly diagnosed or established, was associated with a greater risk of both coronary heart disease and stroke mortality in migrant British South Asians than in comparable Europeans (2). Age- and sex-adjusted hazard ratios (HRs) for coronary heart disease mortality over 19 years of follow-up in people with diabetes newly diagnosed at the time of baseline studies (1988–1991, Europeans: $n = 76$, South Asians: $n = 138$) were: Europeans, 0.5 (95% CI 0.1–1.9); South Asians, 2.7 (1.6–4.5); ethnicity \times new diabetes interaction, $P = 0.02$. Deaths due to stroke were few in this group, nevertheless a similar picture was observed (age- and sex-adjusted HRs: Europeans, 0.8 [0.1–6.2]; South Asians, 2.8 [1.6–5.1]; P for

interaction = 0.27) (2). More recently in the entire SABRE cohort, we reported double the risk of fatal and nonfatal stroke in South Asians with baseline diabetes compared with Europeans (after multivariable adjustment for known risk factors including smoking, ethnicity \times diabetes interaction: $P = 0.038$) (3).

Shah et al. (1) were unable to adjust their analyses for smoking status. However, smoking prevalence in Canada differs markedly by ethnicity: South Asians, 10%; Chinese, 13%; whites, 25% (in Ontario) (4). In the SABRE cohort, the ethnic differential in all-cause mortality is nonexistent in those with newly diagnosed diabetes at baseline if adjusted for age and sex only (South Asians vs. Europeans: HR 1.00 [0.66–1.51]); however, further adjustment for baseline smoking, which was significantly more frequent in the Europeans (32% vs. 16%) increases the ethnic differential to 1.32 (0.83–2.10) (unpublished data). Although numbers of participants with newly diagnosed diabetes in our cohort were small, the increase in point estimate suggests that were it possible to adjust for smoking in the very large Ontario data set (1) an excess of cardiovascular complications and all-cause mortality could be revealed in the South Asians and that the protection apparently enjoyed by

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the Chinese group could be diminished. We have also shown that low smoking rates in South Asians may largely account for their low risks of peripheral vascular disease and amputation (5).

Thus, there is a real potential for the risk of cardiovascular and other complications to be downplayed in South Asians with diabetes on the basis of this study, which was conducted in a relatively young population using indirectly collected data, with limited duration of follow-up (median 4.7 years) and without accounting for key confounders, in particular smoking.

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