HIGHLIGHTS

South Asians living in Canada are at higher cardiovascular risk

Almost one million South Asian people live in Canada. Initial research suggests that this group may have higher rates of cardiovascular disease than other groups.

In this systematic review and meta-analysis of 50 studies, Rana, de Souza and colleagues found that South Asian people living in Canada had a higher prevalence and incidence of cardiovascular disease than white Canadians. They also had a unique cardiovascular risk profile, with twice the burden of diabetes (odds ratio 2.25, 95% confidence interval 1.81 to 2.80) and a high prevalence of hypertension; greater insulin resistance; a higher percentage of body fat (Figure opposite); higher visceral adiposity; and lower high-density lipoprotein cholesterol levels. South Asians were less likely to smoke but also had lower levels of physical exercise.

The authors conclude that we need to better understand the appearance of these risk factors among children and youth and develop intervention strategies to reduce risk factors and cardiovascular disease in this high-risk group. ***CMAJ Open* 2014;2: E183-91**

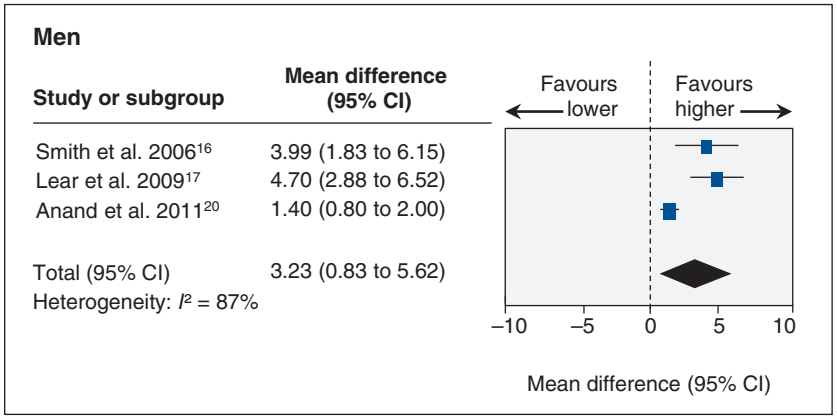

Figure: Meta-analysis of studies evaluating differences in percentage body fat between South Asian and white Canadian men. A mean difference greater than zero indicates higher percentage body fat among South Asian people. CI = confidence interval.

How well does the high-sensitivity troponin assay perform in diagnosing acute myocardial infarction?

High-sensitivity troponin assays have greatly improved the analytic performance of conventional troponin testing. However, one of the main challenges is the potential for overdiagnosis of acute coronary syndromes because of their increased sensitivity. An assay that is very sensitive but has low specificity may lead to unnecessary investigations.

This systematic review and meta-analysis of nine studies compared high-sensitivity assays with conventional assays of cardiac troponin levels among adults with suspected acute myocardial infarction in the emergency department. Al-Saleh and colleagues found that the high-sensitivity troponin assay had improved sensitivity (0.94, 95% confidence interval [CI] 0.89–0.97 v. 0.72, 95% CI 0.63–0.79) but reduced specificity (0.73, 95% CI 0.64–0.81 v. 0.95, 95% CI 0.93–0.97) for diagnosing myocardial infarction compared with the conventional assays (Figure opposite). Both the high-sensitivity and conventional assays performed similarly on serial measurements over 6 hours.

From this study, the authors conclude that the major advantage of high-sensitivity troponin assays is in early diagnosis, and they may be particularly useful in triaging patients. ***CMAJ Open* 2014;2:E199-207**

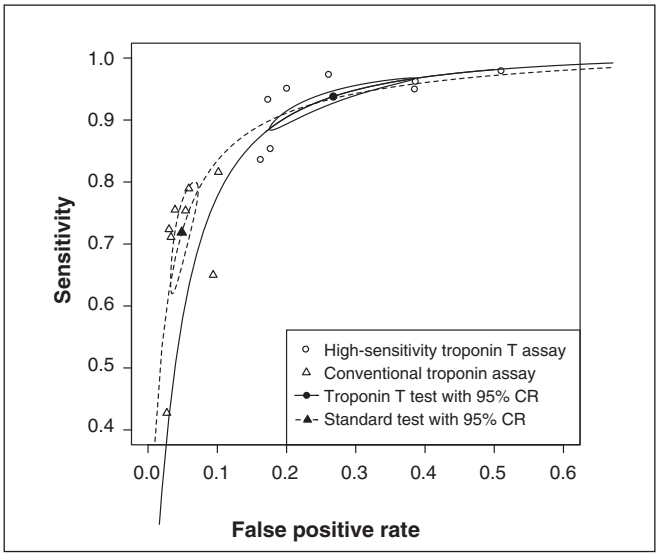

Figure: Comparison of receiver operating characteristic curves for the high-sensitivity troponin T assay and the conventional troponin assay for the diagnosis of acute myocardial infarction at presentation. The loops surrounding the filled shapes summarize the 95% confidence regions (CRs) for each test.

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