Concerning the Debate on Screening Patients with Diabetes Mellitus (DM) for Silent Myocardial Ischemia

To the Editor

I read with interest the debate on screening patients with diabetes mellitus (DM) for silent myocardial ischemia in the November/December issue of the Journal.

In Egypt, where I live and practice, we have high prevalence of diabetes and ischemic heart disease (IHD), expected to reach ~75% by 2030. In published reports, the prevalence of silent ischemia varied widely from <10% to >50% in asymptomatic patients with DM. In our experience, patients with DM presenting with initial presentation of acute coronary syndrome (ACS) often have advanced atherosclerosis.

There is little agreement among scientific societies in their recommendations for screening asymptomatic patients with DM. Of 14 guidelines analyzed by Ferket et al,[1] eight advised against screening, six recommended imaging techniques in the moderate-to-high-risk patients according to the Framingham risk score, and only two included cost-effectiveness analyses. The larger trials (DIAD, DYNAMIT, and FACTOR 64) recommended against screening.[2–4] However, one should be careful in generalizing the results from these trials to all patients with DM including those in Egypt, as it is possible that larger studies that include high-risk patients could ultimately identify sub-groups in whom screening could improve outcomes.

Also, the patients in these trials were receiving optimal medical therapy including ACE-I, statins, and aspirin. Also the DM was well controlled. These patients were likely therefore at low-moderate risk. These patients differ from our patients. Our patients lack primary prevention measures and often have poorly controlled DM. Oral hypoglycemic agents are the mainstay of treatment as patients do not favor using insulin. They prefer poorly controlled DM over using insulin!

Our patients with DM are likely closer to those enrolled in the BARDOT Study than those enrolled in the DIAD trial.[5] BARDOT patients were selected because they were at high risk. Compared to DIAD patients, BARDOT patients were on the average 2 years older, had DM for 2.4 years longer, had higher hemoglobin A1c values, more end-organ damage, higher rates of standard CAD risk factors, and more were on insulin therapy (50% vs 10%).

The conclusion from BARDOT study was that, if patients with DM are at high risk for IHD, they should be considered for ischemia testing.

So the question should not be to whether to screen or not to screen but rather which asymptomatic patients with DM should be screened for silent ischemia.

I believe that asymptomatic patients with an abnormal resting ECG, evidence of peripheral or carotid arterial disease or those with ≥2 risk factors (hyperlipidemia, hypertension, active smoking, a family history of premature CAD, and albuminuria) should be screened using non- invasive imaging modality.

In the meantime, aggressive medical and lifestyle modification should remain the cornerstone of patient management.

Ahmed Abdel Aaty, MD, FASNC,
Faculty of Medicine, Alexandria University, 21 Mostafa Kamel st. Boulkly, Alexandria 21311, Egypt;
abdeaa55@hotmail.com.

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