Recent research has exposed the frequency of undiagnosed, and consequently untreated, cases of diabetes in patients admitted to hospital due to acute myocardial infarction (MI). While plenty of practice guidelines exist for the treatment of patients who present with both MI and diabetes, most fail to address the issue of incident diabetes screening prior to the implementation of a care plan for cardiovascular problems. The study was presented at the American Heart Association’s Quality of Care and Outcomes Research Scientific Sessions 2014 in Baltimore, Maryland.

A Common Comorbidity

Approximately one third of heart attack patients in the United States are aware that they have diabetes when they are admitted to hospital with acute MI. A study led by Dr. Suzanne V. Arnold from Saint Luke’s Mid America Heart Institute in Kansas City reveals that an additional 10 percent of MI patients had diabetes diagnosed during their hospital stay. “Our study highlights the contemporary incidence of diabetes in the setting of acute MI in the United States,” Dr. Arnold wrote.

Acute MI and type 2 diabetes occur together often, but in many cases the MI-related hospitalisation is the first opportunity a patient has to be diagnosed and treated. To explore this phenomenon, researchers sent blood samples from 2,854 acute MI patients with no previous diabetes diagnosis, who were admitted to one of 24 sites in the United States between 2005 and 2008. The lab results showed that one in ten patients actually had underlying diabetes. However, 69 percent of the new cases were never detected by the patients’ physicians during their hospital stay. The haemoglobin A1c (HbA1c) test was more likely to detect “hidden” diabetes in MI patients, the study found, but that test is not routinely administered during hospital admissions for MI.

Diabetes Diagnosis Informs Cardiovascular Care Choices

The consequences of a failure to diagnose incident diabetes can be detrimental to patients. The study showed that less than seven percent of the patients whose diabetes was not detected during their hospitalisation had started to receive diabetic treatment six months after discharge. That figure contrasts with the finding that 71 percent of patients whose disease had been recognised were being treated by that time.

The discovery is relevant and timely since early diagnosis of diabetes plays an important role in cardiovascular care management. Diabetic patients may have better outcomes with bypass surgery, so advance knowledge of multivessel disease is helpful when choosing a revascularisation technique. Likewise, diabetes has an effect on which antiplatelet agents and antihypertensives best benefit the patient. Diabetics typically respond better to intensive antiplatelet agents, and their hypertension is often more effectively managed with vasodilating beta-
blockers or angiotensin-converting enzyme inhibitors.

The researchers conclude that a major opportunity exists to improve type 2 diabetes detection in acute MI patients not previously diagnosed with the condition. By screening MI patients who present evidence of hyperglycaemia, physicians will have an improved chance of discovering hidden disease, and patients will be able to subsequently adopt lifestyle changes to prevent long-term complications.

Source: Medscape
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Published on: Tue, 10 Jun 2014