This study highlights the changing clinical picture of MFS. Although the literature still notes dissection of the ascending aorta to be the primary cause of death in patients with MFS (4), our data would suggest that those patients with a known diagnosis who receive routine cardiac care do not succumb to complications related to the ascending aorta but rather face ongoing morbidity and mortality related to distal or peripheral arterial disease. Surveillance of the distal aorta and branches is warranted in all adults with MFS.

Anji T. Yetman, MD*
*Marfan Subspecialty Cardiology Clinic
Primary Children’s Medical Center
100 N. Mario Capecchi Drive
Salt Lake City, Utah 84108
E-mail: angela.yetman@mail.org

Genie E. Roosevelt, MD, MPH
Nancy Veit, FNP
Melanie D. Everitt, MD

REFERENCE

Letters to the Editor

Cerebrovascular Atherosclerosis and Stroke in Patients After Coronary Artery Bypass Graft Surgery

We read with interest the paper by Lee et al. (1) on the influence of cerebral atherosclerosis and stroke after coronary artery bypass surgery (CABG). Interestingly, they demonstrated that two-thirds of the patients undergoing CABG (65.4%) had steno-occlusive lesions in the intracranial and/or extracranial cerebral arteries. Thus, the issue of cerebrovascular disease and postoperative neurological complications is very important in these patients, and awareness is mandatory for the cardiac surgeons. At our institution, we perform ultrasound of the carotid arteries as a routine checkup before CABG surgery. If we have evidence of neurovascular disease, we modify the anesthesiological management (e.g., keep mean arterial pressure higher during extracorporeal circulation), the patient monitoring (cerebral near-infrared spectrometry), and surgical management (e.g., epiaortic ultrasound, aortic “no-touch” techniques). Our first question for the authors is: Was the perioperative management adapted in patients with (more severe) cerebrovascular disease?

In one of our studies, we found that atherosclerosis of the ascending aorta, as determined by intraoperative epiaortic ultrasound, was a risk factor for strokes and during mid-term follow-up of CABG patients (2). Furthermore, ascending aortic atherosclerosis adversely affected long-term survival after CABG (3). Our second question for the authors is: Did (severe) atherosclerosis of the aortic arch and/or the ascending aorta have an impact on post-CABG strokes?
We cordially appreciate the valuable comments from Dr. Schachner and colleagues on our study (1) assessing the relationship between cerebral atherosclerosis and post-coronary artery bypass graft (CABG) stroke. Cerebral atherosclerosis was both an independent risk factor and the cause of a significant (45%) proportion of post-CABG strokes (1). Thus, as rightfully noted by Dr. Schachner and colleagues, awareness and careful management may be mandatory for those patients with cerebral atherosclerosis who are undergoing CABG.

Dr. Schachner and colleagues had 2 specific questions for us: Was the perioperative management adapted in patients with (more severe) cerebrovascular disease, and did (severe) atherosclerosis of the aortic arch and/or the ascending aorta have an impact on post-CABG strokes? With regard to the first question, we currently do not have a routine protocol for patients with cerebral atherosclerosis. Rather, perioperative management was decided and performed adequately according to the situation by attending physicians, surgeons, and anesthesiologists who were alerted to the result of pre-operative magnetic resonance angiography (MRA). To the best of our knowledge, no large study has been conducted on the relationship between a specific perioperative management and the risk of post-CABG stroke in patients with (severe) cerebral atherosclerosis. But we agree with Dr. Schachner and colleagues on the issue that modifying strategies may be helpful in reducing the risk of post-CABG stroke. A small study of 140 patients undergoing CABG revealed that a different surgical strategy (off-pump CABG) helped to prevent post-CABG strokes (2). In addition, different perioperative management (e.g., immediate commencement of antiplatelet or anticoagulant therapy and prolonged cardiac monitoring after the surgery in patients with cerebral atherosclerosis) can be a useful strategy to reduce the stroke risk. Additional studies are warranted to elucidate the optimal management in those patients.

For the second question, all patients did not undergo aortic evaluation by transesophageal echocardiography (TEE) in our study. In addition, intraoperative epi-aortic ultrasonography data were not recorded in the study registry. Thus, we cannot provide the exact data regarding the question. But, we believe that severe atherosclerosis of the aortic arch and/or the ascending aorta can increase the risk of post-CABG stroke (3). Accordingly, in our institution, surgeons tend to perform off-pump CABG and/or aortic “no-touch” techniques in those with severe atheromatosus aortic disease. Notably, current aorta-evaluating methods may be too invasive to be applied to all CABG candidates. The elderly cannot tolerate pre-operative TEE too often; embolic strokes can be induced by direct manipulation of the aorta with unstable atheroma. Thus, investigating noninvasive predictors of aortic atherosclerosis may be useful. We believe that cerebral atherosclerosis evaluated by using MRA can be one of those predictors. It may be interesting to evaluate the relationship between aortic arch and cerebral atherosclerosis by conducting both pre-operative TEE and MRA in stable CABG patients. In addition, we believe that this approach might bring us the right answer with regard to the second question raised by Dr. Schachner and colleagues.

Eun-jae Lee, MD
Sun U. Kwon, MD

We read with great interest the paper by Yeboah et al. (1) regarding the effect of impaired fasting glucose (IFG) and incident diabetes, as well as diagnosed diabetes mellitus on cardiovascular events after a mean follow-up duration of 7.5 years, and its conclusion of IFG not being independently associated with an increased short-term risk for incident cardiovascular events (whereas diabetes mellitus type 2 was). The well-written paper attempts to answer a pertinent debate on whether IFG is an independent risk factor for incident cardiovascular events—the data thus far has been variable and heterogeneous (2,3). However, a few interesting points arise from the analysis, which we feel, may require clarification.