Even though patients with both atrial fibrillation and atherothrombotic disease had a high long-term risk of adverse cardiovascular outcomes, use of anticoagulants remained relatively low, an international registry showed.

Among patients with either established atherosclerotic disease or at least three risk factors, a history of atrial fibrillation at baseline was associated with about double the risk of cardiovascular death, myocardial infarction, or stroke over the next 4 years (18.9% versus 9.4%, P<0.0001), according to Christian Ruff, MD, of Brigham and Women's Hospital in Boston, and colleagues.

Despite that greater risk, however, only about half of the patients with a history of atrial fibrillation (52%) were receiving anticoagulation at the 4-year follow-up, the researchers reported online in the International Journal of Cardiology.

"This large, international study underscores that these vulnerable, high-risk patients often do not receive guideline recommended care, likely due to the complexity of their management and the lack of data informing clinicians on the optimal treatment approach," they wrote. "Although a new era of anticoagulation therapy is on the horizon, further study of these agents in patients with concomitant atrial fibrillation and atherothrombosis are desperately needed."

It is known that patients with atrial fibrillation carry an elevated risk of thromboembolic events, but there is little information available about long-term outcomes in those with both the arrhythmia and atherosclerotic disease, two conditions that share certain risk factors, including age, hypertension, diabetes, and obesity.

To explore the issue, Ruff and colleagues examined data from the international REACH registry, which included stable outpatients at least 45 years old who had either established coronary artery disease, cardiovascular disease, or peripheral artery disease or at least three risk factors.

The analysis included 44,518 patients (mean age 68) who had 4-year follow-up data available; 10.3% had a history of atrial fibrillation at baseline.

Those with atrial fibrillation – versus those without such a history – had a greater risk of
cardiovascular death, MI, or stroke during the study after adjustment for age, gender, prior ischemic event, vascular disease, congestive heart failure, diabetes, smoking, body mass index, region, and aspirin and statin use.

The difference -- which was greater than the disparity seen in a previous analysis of 1-year data -- was consistent both in the patients with established atherothrombosis and in those with risk factors.

Use of anticoagulation -- which was exclusively done with warfarin and other vitamin K antagonists at the time of the study -- was low, occurring in only 52.3% to 61.6% of the patients with a CHADS2 risk score of 2 to 6, a group recommended to receive anticoagulation in guidelines.

Ruff and colleagues noted that previous studies have shown that a main obstacle to using anticoagulation to prevent stroke in patients with atrial fibrillation is fear of bleeding.

"Patients at the highest risk for stroke are often the same patients at the highest risk for bleeding complications," they wrote. "This is especially true in patients with atherothrombosis who frequently require chronic antiplatelet therapy and extended periods of dual antiplatelet therapy after acute coronary syndrome or percutaneous intervention."

There is hope, they said, that the new wave of oral anticoagulants might be safer and more effective than warfarin, but "patients with atherothrombosis and polyvascular disease, who often require revascularization procedures and aggressive antiplatelet treatment, are not well represented due to strict inclusion and exclusion criteria for those clinical trials."

"The optimal antithrombotic regimen, including anticoagulants and antiplatelet agents, is critically important, as the highest-risk patients face staggering cardiovascular event rates that approach 30% to 40% at 4 years, as noted in the present investigation," they wrote.

The authors acknowledged some limitations of their analysis, including the lack of information on atrial fibrillation occurring after follow-up, the lack of details on the type, duration, and management of atrial fibrillation, and the fact that not all patients who entered the registry were followed for 4 years.

The REACH Registry is sponsored by Sanofi-Aventis, Bristol-Myers Squibb, and the Waksman Foundation. It is endorsed by the World Heart Federation.

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