Atrial Fibrillation in Cryptogenic Stroke: New Tools Needed for Diagnosis?

Fibrilación auricular en el ictus criptogénico: ¿son necesarias nuevas herramientas para su diagnóstico?

To the Editor,

We have read with great interest the recently-published article of Mercé et al1 “Implantable Loop Recorder: A New Tool in the Diagnosis of Cryptogenic Stroke”. Clearly, the active search for episodes of atrial fibrillation (AF) as a possible cause of stroke is a topic of current importance given that the underdiagnosis of cardioembolic sources could explain a significant percentage of episodes in the 30% of stroke cases considered cryptogenic. In the present letter, we would like raise two issues about the use of the implantable loop recorder to detect these episodes: Firstly, is it really as useful a tool as the article proposes? Secondly, should we use it in all patients?

In the aforementioned article, implantable loop recorders detected AF in 35.7% of the sample but we note that the mean age of the patients with AF episodes was significantly older (P = .01) than that of those with no detected episodes. Furthermore, we would point to the high percentage of men (71.4%) in the sample, and the high prevalence of cardiovascular risk factors (79% with high blood pressure, 36% with diabetes mellitus), which could, in turn, partly explain the high incidence of AF detected, even in a sample of only 14 patients. In a recent article on the use of implantable devices in a total of 51 patients, Cotter et al2 reported a 25.5% incidence of AF during follow-up—a lower rate than that reported by Mercé et al1 although we should point out that the mean age of the patients was lower (median, 52 years). In another recent study, Rojo-Martínez et al3 included a total of 101 patients with characteristics similar to those of the sample of Mercé et al. The incidence of hidden AF was 33.7%, demonstrating the high incidence of this entity in patients with what is termed cryptogenic stroke. Our own study used noninvasive methods (electrocardiogram performed in the center, Holter monitoring of admissions) in a cohort of 273 patients diagnosed with cryptogenic stroke in our center, with a mean age of 62 (13) years, and characteristics comparable to the samples of the 2 studies cited.4 The incidence of hidden AF was only 2.6% in a 3-year follow-up—significantly lower than in the other studies—with a mean age 67 (7) years slightly older than that of the total sample, which coincides with the data mentioned.

In view of the results, the implantable loop recorder clearly seems better at detecting hidden AF although, as we have mentioned, in a specific patient profile—older, with a greater prevalence of cardiovascular risk factors—detection of these episodes is more frequent. This finding could be explained by the etiology and pathogenesis of AF, which leads us question the cost-effectiveness of performing invasive studies such as these in younger patients with cryptogenic stroke and high suspicion of an embolic etiology. In this patient profile, we have studied the diagnostic effectiveness of imaging tests such as transesophageal

References


To the Editor,

First of all, we would like to thank the authors for their interest in our article,1 given their experience in this field.2

Although endomyocardial fibrosis is clearly an idiopathic restrictive cardiomyopathy typically occurring in tropical and subtropical regions, it has also been previously reported in European patients with no history of travelling to tropical countries.3 Some of these reports have communicated severely calcified forms of this disease.4 We would like to state that an exhaustive evaluation was performed to complete the diagnostic workup and exclude possible causes of our patient’s massive cardiac calcification. In fact, calcium metabolism was found to be normal. Diastolic function assessment by transthoracic echocardiogram was hampered by the presence of atrial fibrillation and no invasive evaluation was conducted. In our opinion, cardiac calcification is almost transmural, not only myocardial, as shown by computed tomography. Left ventriculography, which was not included in the original article, revealed a marked distortion of the left ventricular cavity with involvement of the apex (Video).

We should recognize, as the authors state, that endomyocardial biopsy lacks consistency, but we would like to underscore that it is technically challenging to obtain good quality tissue samples in such a calcified heart, which may represent the end stage of this entity. Histopathological examination after surgery could have been definitive for diagnosis; unfortunately, the patient was deemed a poor surgical candidate because of the considerable extent of the process.

Massive Left Ventricular Calcification: Related to Endomyocardial Fibrosis or Idiopathic? Response

Calcificación masiva del ventrículo izquierdo: ¿relacionada con la fibrosis endomocárdica o idiopática? Respuesta

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