PATIENT SELECTION PROTOCOL FOR LONG TERM INSERTABLE CARDIAC MONITORING:

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BACKGROUND AND AIMS:

- The purpose of developing the present protocol is selecting patients who are suitable for long time monitoring with insertable holtter with remote detection of dysrhythmias trying to increase the detection rate of paroxysmal atrial fibrillation in patients with cryptogenic stroke.
- At the same time we correlate the existence of structural cardiac abnormalities or dysrhythmias detected during the hospital admission referred as minor cardioembolic risk factors with the existence of a potentially embolic silent arrhythmia.

METHOD:

- We select those cryptogenic strokes who present:

- Not lacunar stroke or different locations cortical or subcortical at the same time by CT/ MRI.
- Absence of extracranial or intracranial aterosclerosis causing $\geq 50\%$ luminal stenosis in arteries supplying the area of ischaemia.
- No major-risk cardioembolic source of embolism.
- No other specific cause of stroke identified (eg, arteritis, dissection, migraine/vasospasm, drug misuse)

THE DIAGNOSTIC ASSESSMENT INCLUDES:

- Brain CT or MRI.1
- 12-lead ECG.
- Precordial echocardiography with shunt detection.
- Cardiac monitoring for ≥ 24 h with automated rhythm detection.
- Imaging of both the extracranial and intracranial arteries supplying the area of brain ischaemia (catheter, MR, or CT angiography, or cervical duplex plus transcranial doppler ultrasonography)

- The selected patients will be those who have cryptogenic stroke with at least a finding of the following in the extension study:

NON-ATRIAL FIBRILLATION ATRIAL DYSRHYTHMIAS:

and/or

MINOR-RISK POTENTIAL CARDIOEMBOLIC SOURCE:

- Paroxysmal supraventricular tachycardia.
- Sick sinus síndrome.
- Atrial high-rate episodes in patients with cardiac pacemakers.

- MITRAL VALVE:**
 - Myxomatous valvulopathy with prolapse
 - Mitral annular calcification
- AORTIC VALVE:**
 - Aortic valve stenosis
 - Calcific aortic valve
- ATRIAL STRUCTURAL ABNORMALITIES:**
 - Left atrial dilatation
 - Atrial septal aneurysm
 - Chiari network
 - Atrial appendage stasis with reduced flow velocities or spontaneous echodensities
- LEFT VENTRICLE:**
 - Moderate systolic or diastolic dysfunction (global or regional: left ventricular wall motion abnormalities or aneurysms after miocardial infarction).
 - Ventricular non-compaction
 - Endomyocardial fibrosis

PRELIMINARY RESULTS:

- The implant was performed successfully in the 15 patients, without complications related to it and with a signal amplitude of $> 0.3\text{mV}$ in all cases.
- 58.8% were male
- Mean age was 61 ± 15 years.
- 56.3% were hypertensive and 12.5% diabetic.
- 63.8% were multiterritorial infarcts.
- During follow-up (mean follow-up of 6.5 ± 4.5 months), asymptomatic atrial fibrillation was detected in two of the 15 patients after automatic alerting in the remote monitoring system (13.3%)
- The time from implant to diagnosis: 37 to 188 days.
- In these two cases, oral anticoagulation was started at 1 and 7 days, respectively, from the diagnosis.

CONCLUSION:

We believe that the screening based on such criteria can serve to reduce costs and better select those patients who are candidates.