EFFICIENCY AND SAFETY OF LEFT ATRIAL APPENDAGE CLOSURE

Martínez Peralta, S.¹;Álvarez-Álvarez, M.¹;Vera-Monge, V.¹;Murillo-Hernández, A.¹;Calabria-Gallego, M.D.¹;Domínguez-Díez, J.¹;López-Agudelo, O.¹;Sierra-Gómez, A.¹;Pérez-Pérez, B.²;Márquez-Batalla, S.³;Redondo-Robles, L.¹;López-Mesonero, L.¹

1Complejo Asistencial Unviersitario de Salamanca, Neurology, Salamanca, Spain

2 Complejo Asistencial de Zamora, Community Medicine, Zamora, Spain

3 Complejo Asistencial Unversitario de Salamanca, Radiology, Salamanca, Spain

INTRODUCTION

Left atrial appendage closure is an alternative of stroke prevention for patients with atrial fibrillation and contraindication for anticoagulation. We analyze the characteristics, complications and follow-up of a serie of patients who required the procedure.

We indicated left atrial appendage closure and followed consecutive cases of patients who presented acute ischemic or hemorrhagic strokes and contraindication for anticoagulation in our centre between July 2009 and December 2017.

Age	79±7
Gender	
Male	49 (50.5)
Female	48 (49.5)
CHA2DS2-VASc	5±1
HAS-BLED	4±1
Arterial Hypertension	87 (89.7)
Mellitus Diabetes	37 (38.1)
Dyslipidemia	43 (44.3)
AF	
Paroxysmal	26 (26.8)
Permanent	66 (68)
Flutter	5 (5.2)
Stroke	
Ischaemic	40 (41.2)
Hemorrhagic	57 (58.8)
Previous treatment	
VKA	51 (52.6)
NOAC	16 (16.5)
Antiplatelet therapy	14 (14.4)
Other	4 (4.1)
None	7 (7.2)

TABLE 1. Basal Characteristics

Follow-up (months)	23,5 [14-39]
Device-related death	0
Other-causes death	10 (10)
Ischemic stroke	2 (2)
Cortical hemorrhage (amyloid angiopathy)	1 (1)

TABLA 2. Follow-up.

RESULTS

Procedure was performed in 97 patients, 49 male and 48 female; all the patients had non valvular arrhytmia, in 66 (68%) it was permanent atrial fibrillation, in 26 (26.8%) paroxistic atrial fibrillation and in 5 (5.2%) it was an atrial flutter. Most of them had concomitant conditions like arterial hypertension in 90% of cases, and mellitus diabetes in 38%. In 57 (58.8%) patients the stroke had been hemorrhagic and in 40 (41.2%) ischemic. In 4 (4.1%) cases periprocedural complications were reported, with no influence in the final prognosis: 1 case of cardiac tamponade that was treated succesfully, 1 case of transient ischemic attack, 1 case of right coronary artery air embolism and 1 case of device embolism. During our follow-up, with a median of 27 months, one patient had an intracerebral hemorrhage and there were 2 reports of ischemic strokes, without new secuelae or new imaging findings. Totally, 10% of patients died and in all cases it was at least one year after procedure, and not related it.

Early LAAC (< 3 months after event)	36 (34.6)
Devices	
Amplatzer Cardiac Plug	4 (4.1)
Amulet	41 (42.3)
Watchman	44 (45.4)
LAmbre	4 (4.1)
Ultraseal	1 (1)
Periprocedural/inhospital complications	
Cardiac tamponade	1 (1)
Device embolization	1 (1)
Stroke	0
TIA	1 (1)
Coronary artery air embolism	1 (1)
Death	0
Discharge treatment	
Aspirin + Clopidogrel	73 (75.3)
LMWH	6 (6.2)
Aspirin	7 (7.2)
Clopidogrel	3 (3.1)
VKA + Aspirin	3 (3.1)
NOAC	6 (6.2)

TABLE 3.Procedure-related characteristics.

Continuous variables are presented as a median [interquartile range] or mean ± standard deviation. Categorical variables are shown as frequency and percentage. AF: atrial fibrillation. VKA: vitamine K oral antagonists. NOAC: new oral anticoagulants. LAAC: left atrial appendage closure. TIA: transient ischemic attack. LMWH: low molecular weight heparine.

DISCUSSION

Left atrial appendage closure can be an efficient and safe alternative for secondary stroke prevention in patients with non valvular atrial fibrillation. According to the data observed in our patient series, this is an intervention with few perioperative complications, low recurrence and low mortality, which is unrelated to the procedure

References

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