

Letters to the Editor

Comment on the Article “Simultaneous Percutaneous Closure of Patent Foramen Ovale and Left Atrial Appendage”

Comentario al artículo «Cierre percutáneo simultáneo de foramen oval permeable y orejuela izquierda»

To the Editor,

We read the article entitled “Simultaneous Percutaneous Closure of Patent Foramen Ovale and Left Atrial Appendage”¹ with considerable interest.

Percutaneous left atrial appendage (LAA) occlusion devices have been enthusiastically received because they avoid invasive surgery. At the same time, analysis of surgically occluded atrial appendages in patients with mitral disease shows that complete exclusion of the LAA is not always achieved. In a study by Kanderi et al.,² it was observed that occlusion was incomplete or that a potentially embolic residual pouch remained after occlusion in 60% of the LAAs studied, regardless of the technique used. In reaching these conclusions, the authors identified 3 criteria for permeability using ultrasound techniques: a) ultrasound images compatible with permeable LAA; b) occluded LAA with persistent flow into the appendage; and c) a residual pouch of >1 cm.

In the clinical case presented, after implantation of an Amplatzer Cardiac Plug (ACP), “a minimal flow into the appendage at the edges of the device” was observed using transesophageal echocardiography.¹ If we apply the same criteria as those mentioned above, the occlusion should be considered incomplete.

From our point of view, there is a conceptual error in the design of these devices because their circular surface does not occlude the ostium of the LAA (which is oval in shape). Other authors have expressed the same opinion.³ On the other hand, the initial European experience with ACPs has also been published recently⁴; nevertheless, in that case, ultrasound data on impermeability were not analyzed, a fact which might raise doubts about their effectiveness. Results published for 2 other devices on the market (PLAATO[®] and WATCHMAN[®]), in which ultrasound results were analyzed, showed slight leakage in 13% of cases⁵ and flow through the device of >5 mm in 14%,⁶ respectively.

In our opinion, surgically occluded LAAs are structurally different. They usually occur in patients with atrial fibrillation (AF) and / or concomitant mitral valve disease who are undergoing a (re)intervention and who typically have atria of >60 mm and ostium sizes >25 mm. This is in comparison to appendages in patients with isolated AF in which the atria and the ostium are not as dilated and in which the walls are not so thin and fragile.

Surgical exclusion of LAA (which is recommended in the European guidelines for patients with AF undergoing mitral valve surgery) is an effective procedure as long as the appropriate techniques are used to ensure impermeability of the LAA without risk of complications.⁷ The fact that some authors still argue over the benefit of occluding the appendage may suggest a

lack of awareness of its importance among cardiologists and surgeons.⁸

In the clinical case presented, the percutaneous approach was less invasive and it was possible to complete the treatment using percutaneous ablation procedures for AF. But we should not forget that (minimally invasive) surgery also makes it possible to occlude the LAA, correct atrial septal defects, and perform surgical ablation using well-tested techniques.

In our opinion, percutaneous LAA occlusion devices still require more development and further testing of their effectiveness.

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