

the vessel wall (Fig. 2C, arrow). Atheromatous plaques were not observed.

Optimal treatment for spontaneous coronary artery dissection is not well defined. Conservative medical treatment has been efficient in asymptomatic cases with haemodynamic stability and in the absence of residual ischaemia. Heart procedures with stents have been used in localised dissections,² whereas surgery has been considered for cases involving the coronary artery or multiple vessels.^{1,3} The role of fibrinolysis in this condition is controversial: a favourable effect could be expected by dissolving the intramural haematoma.⁵ However, the same treatment could extend the dissection,⁶ with the consequent increase in the risk of coronary rupture into the pericardium. Early reperfusion is the treatment of choice for ACS with ST-segment elevation (ACS-STE). The fibrinolysis value is supported by clinical practice guidelines, above all when performed early or when a primary angioplasty is delayed, and is still the most commonly used type of reperfusion. In any case, an ACS-STE in a young woman without CVRF should make us consider performing a coronarography on an individual basis, even when this implies slightly delaying the time to reperfusion, in order to avoid complications in the fibrinolytic treatment.

We have presented this case primarily because of its rare occurrence, both due to it having appeared in a middle-aged woman with CVRF (arterial hypertension and obesity) as well the appearance of a haemopericardium secondary to a ruptured coronary artery that constitutes the fourth case of its kind,^{3,4} since the first case was described by Pretty in 1931.² We believe that the fibrinolytic treatment was key in the appearance of the haemopericardium. We also consider that necropsies, greatly underused in our field, should be performed more frequently in order to

complement the physician's efforts at confirming the aetiology, as in our case.

Rafael J. Hidalgo-Urbano,^a Manuel Almendro-Delia,^{a,*} and José L. Villar-Rodríguez^b

^aUnidad Coronaria, Servicio de Cardiología, Hospital Virgen Macarena, Sevilla, Spain

^bDepartamento de Anatomía Patológica, Hospital Virgen Macarena, Sevilla, Spain

*Corresponding author:

E-mail address: almendrode@secardiologia.es

(M. Almendro-Delia).

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Device Thrombosis During the Percutaneous Closure of a Patent Foramen Ovale

Trombosis de dispositivo durante el cierre percutáneo de foramen oval permeable

To the Editor,

A 58-year-old woman with history of cerebral aneurysm that was embolized 1 year earlier, with no cardiovascular risk factors, was admitted to the hospital with aphasia and hemiparesis due to a cerebral infarction in the left middle cerebral artery. In a transthoracic echocardiography with saline, a moderate tendency of microcavitations in the left atrial was observed, with interatrial septum intact and no structural anomalies. A transesophageal echocardiogram (TEE) demonstrated a hypermobile, >11mm-bulging membrane at the oval fossa that was becoming detached in the anterior segments, and a prominent Eustachian valve directing flow towards it. The patient was referred for percutaneous closure of the patent foramen ovale (PFO) and was treated with 300 mg acetylsalicylic acid. Non-fractionated heparin was administered preoperatively at 6000 UI. A 35mm-Amplatzer device was implanted under general anaesthesia using a TEE-guided right femoral approach (before and during the apposition and release of the occluder). No initial complications were produced during this brief procedure. After releasing the device, we observed a hypermobile filiform image in the left atrial face (Fig. 1) that would correspond to a thrombus, but which did not cause incorrect disc apposition. We administered an additional 7500 UI non-

fractionated heparin and treatment was started with 100 mg acetylsalicylic acid, 75 mg clopidogrel, and therapeutic doses of enoxaparin. The patient stayed in the hospital for 1 week, with no new neurological symptoms or hemorrhagic events associated with the treatment; TEE imaging showed no thrombi and that the occluder was functioning correctly (Fig. 2). Given the patient's history of cerebral aneurysm and the close association between thrombi and this procedure, the patient was discharged with only

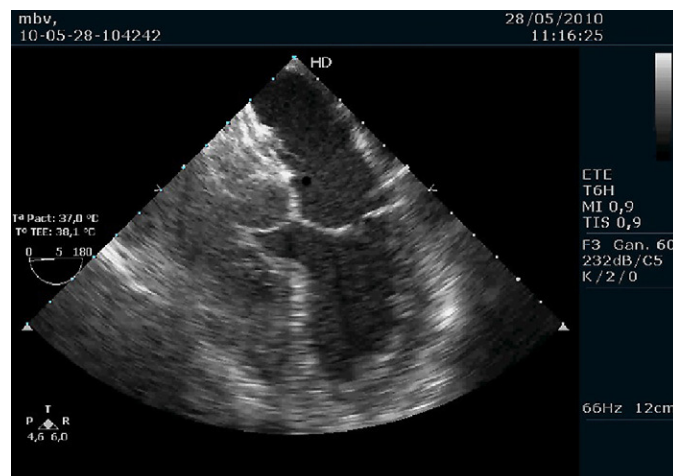


Figure 1. Filiform image in the atrial face of the left disc that corresponds to a thrombus.

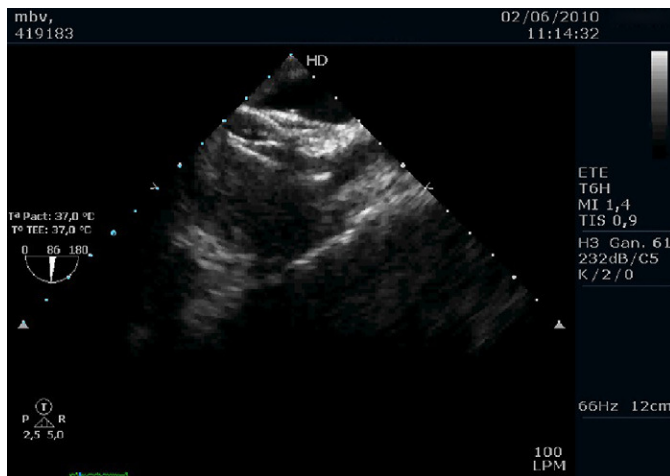


Figure 2. Good apposition of a double disc device, with no images of thrombi.

double anti-aggregation therapy. The clinical follow-up at 4 months was satisfactory.

The prevalence of PFO in patients with a history of stroke ranges between 20% and 40%, and the estimated annual rate of recurrent ictus among PFO patients ranges between 1.5% and 12%, depending on the population studied.¹ The optimal treatment for preventing strokes in PFO patients has not been identified. The international clinical practice guidelines recommend antiplatelet aggregation treatment for patients with transient ischemic attack and PFO, although it also could be indicated as an anticoagulant in other situations, such as atrial fibrillation: "[...] insufficient data exists [...] regarding the use of percutaneous closing devices for PFO in patients with their first ictus; this strategy could be considered for those patients who have suffered repeated cryptogenic strokes in spite of medical treatment."^{2,3}

During the percutaneous closure of a PFO, the total incidence of device thrombosis is small, varies according to the study, and also depends on the type of occluder used. In the Krumdort⁴ series (with 1000 patients [593 PFO and 407 with atrial septal defects]) and TEE used during the procedure and at 4-week follow-up, the

total rate was 6%. In the TEE study after 4 weeks, no thrombi were found in the 292 cases involving an Amplatzer occluder, 1 (1%) in 161 Helex devices, 3 (7%) in 127 PFO-Star devices, and 7 (7%) in 100 CardioSEALs. Although the incidence was low, the best predictors for the thrombi formation were the presence of persistent atrial fibrillation and ASA. No increased benefit was observed when treating patients with a combination of aspirin and clopidogrel with respect to the group that received only aspirin as a thrombosis prophylaxis treatment. In general, thrombus was resolved through medical treatment in 17 of 20 patients within 4 weeks to 6 months (warfarin and/or heparin); in 3, a surgical extraction of the thrombus was required.

This case illustrates the usefulness of TEE during percutaneous structural procedures, as well as the need for intensive anti-aggregant and anti-coagulant treatment in order to avoid complications in patients with thrombi.

Eduardo J. Lezcano,* José R. Ruiz, and Isaac Lacambra

Servicio de Cardiología, Hospital Clínico Universitario Lozano Blesa, Zaragoza, Spain

* Corresponding author:

E-mail address: eduardo.lezcano@gmail.com (E.J. Lezcano).

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Childhood and Adolescent Obesity. A Matter of Confusion

Obesidad infantojuvenil. Un terreno abonado para la confusión

To the Editor,

We have read the article recently published by Escribano et al. in the *Revista Española de Cardiología* with great interest.¹ Epidemiological studies are a starting point for performing interventions and analytical studies, and have recently recovered the scientific prestige that they had in previous decades. We would like to specify some aspects of the definition of obesity.

As many other authors have pointed out, in the clinical field obesity is indirectly defined using the body mass index (BMI) and the waist circumference (WC), with established cut-off points for both. These values are well recognized for the adult population, but underestimate the actual prevalence in children and adolescents.² The same occurs with other cardiovascular risk factors (CVRF): arterial hypertension and hypercholesterolemia.

Pediatric societies have shown consensus on defining the prevalence of CVRF, using percentile charts validated by cross-sectional and longitudinal studies. However, there are some

controversies in defining child and adolescent obesity using BMI, ie, whether age- and sex-dependent national charts with a percentile cut-off point of 97th (p97) should be used,³ or international criteria should be taken as reference.⁴ There is more agreement regarding abdominal obesity, fixing the cut-off point at the 90th percentile (p90).⁵ For that reason, Escribano et al. should have shown the actual prevalence of general and abdominal obesity in accordance with criteria specific to the 15- to 17-year-old group, showing separate data for adults.

Our group has published CVRF prevalence data for children and adolescents including a sample of 1534 individuals between 9 and 17 years of age from southern Spain.^{6,7} The prevalence of obesity in the 15 to 17 age group was 9.4% according to national criteria (95% confidence interval [CI]: 7.9%-10.8%),⁷ 6.5% being male and 11.3% being female. If we were to use BMI > 30 to define obesity, we would obtain 2.6% in males and 5.5% in females. These data therefore contrast with those published for the adult population from the first age group in the Escribano et al. study. They are however in accord with the enKid studies, which serve as a national reference in Spain, and show that the prevalence of child and adolescent obesity in the center of Spain (Castile and Leon) are very similar, although slightly less than data for Andalusia, in the south.⁵ Prevalence of abdominal obesity for 15- to 17-year-olds