More recently, an entity has been described known as familial aneurysm and dissection. This entity has few evident physical characteristics and has been associated with mutations in multiple genes, including smooth muscle α-actin, transforming growth factor β, and myosin heavy chain 11.[3] The following criteria need to be met for diagnosis: type A or type B aortic dilatation or dissection in individuals younger than 60 years, in the absence of other connective tissue syndromes, hypertension, or atherosclerotic disease and pathological evidence of cystic necrosis of the aortic media or a positive family history (aneurysm or aortic dissection, unexplained sudden death, or known genetic mutation).[3]

Up to 40% of thoracic aortic dissections are expected to be hereditary, and therefore study of a specific underlying genotype may help confirm diagnosis and enable appropriate monitoring, individualized medical and surgical treatment, and screening of other family members to reduce morbidity and mortality.[4] This prompted the American College of Cardiology Foundation and the American Heart Association to recommend that the underlying genetic mutation should determine the timing of aortic repair.[5]

Therefore, given the implications of identifying these entities for other family members, it is essential to reach an etiologic diagnosis. But do we always reach one?

To address this question, we designed a study with the objective of assessing how many final etiologic diagnoses were made among patients with type A dissection in our center between 2000 and 2016.

This was a retrospective study in which all patients diagnosed with type A dissection in the study period were assessed. We reviewed the medical histories of the deceased and recorded whether or not an autopsy had been performed. Among survivors, we also recorded whether final a etiologic diagnosis was reached.

Information from 75 patients was analyzed. Of these patients, 47 were male (63%), the mean age at diagnosis was 63.09 ± 13.8 years, and the mean duration of follow-up was 76 ± 49 months. The following risk factors were present: hypertension (53.3%), diabetes mellitus (8%), dyslipidemia (15%), and smoking (12%). The intraoperative mortality rate was 6.7% (5 patients) and the in-hospital mortality rate was 25.3% (19 patients). Autopsy was performed in 5 of the patients who died (6.7%). During follow-up, 6 patients (8%) died and 11 patients (14.7%) were lost to follow-up. Two of the patients had a relevant family history and 4 (5.3%) had undergone genetic study. The etiologic diagnosis yielded the following results: Marfan syndrome in 3 patients (4%), bicuspid valve in 2 (2.7%), cystic degeneration in 12 (16%), and severe hypertension in 24 (31.8%). Definitive etiologic diagnosis was not established in 34 patients (45.2%), although aortic wall degeneration was reported in 16 patients (21.2%) (Figure).

It was therefore concluded that etiologic diagnosis was not reached in a significant number of patients with type A dissection even though this is essential information for family counselling. While syndromic entities are readily diagnosed, this is not the case for entities such as familial aneurysm and dissection that require family screening and that are associated with cystic medial degeneration. Therefore, the family history and the histologic study of the diseased aortic wall, as well as genetic study, if available, are key in this disease. Likewise, it is important that patients diagnosed with aortic dissection are managed by multidisciplinary teams able to improve morbidity and mortality both of patients and, in some cases, their family members.

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Delirium in Patients With Heart Failure: Influence of Attendance Times in an Emergency Department

Delirio en pacientes con insuficiencia cardiaca: influencia de los tiempos de asistencia en un servicio de urgencia hospitalario

To the Editor,

Delirium is an acute organic brain syndrome characterized by a global deterioration of cognitive functions as a consequence of acute somatic disease.[1] It has been found that 10% to 56% of elderly patients can experience delirium during hospitalization, and in Spain its prevalence in patients in nonsurgical services is 25%.[1] Acute heart failure (AHF) is a frequent diagnosis in emergency department (ED) patients,[2] who often have predisposing factors for delirium, such as comorbidity and biochemical parameters.[3] However, less is known about the parameters external to the patient that could lead to the development of delirium. Therefore, the main objective of this study was to analyze the impact of attendance times in the ED on the development of delirium in patients with AHF admitted to a hospitalization ward.

We retrospectively analyzed 750 patients with AHF admitted to the hospitalization ward of a tertiary hospital. We excluded 54 patients who developed delirium in the ED. Upon admission to the hospitalization ward, all patients underwent an initial

Table 1
Classification of Patients Hospitalized With Heart Failure as a Function of the Development of Delirium During Hospital Admission

Variables	With delirium (n = 148)	Without delirium (n = 548)	*P*
Age, y	67 ± 10	68 ± 11	.30
Female sex	92 (62.2)	404 (73.7)	.006
LVEF, %	47.88 ± 10.10	50.48 ± 11.00	.008
Time from admission to the hospital ED to admission to an inpatient ward, h	50.64 ± 36.96	37.44 ± 27.84	.01
Admission time in the hospital ED until specialist consultation to re-evaluate hospital admission, h	10.80 ± 23.76	6.96 ± 14.88	.06
Total hospitalization time, d	12.00 ± 3.71	10.65 ± 3.73	.001
Inhospital mortality	10 (6.8)	19 (3.5)	.07
Medical history			
Previous HF episode	99 (66.9)	304 (55.5)	.01
Chronic ischemic heart disease	28 (18.9)	83 (15,1)	.26
Atrial fibrillation	27 (18.2)	77 (14,1)	.20
COPD	18 (12.2)	54 (9.9)	.41
Cardiovascular risk factors			
Hypertension	89 (60.1)	347 (63.3)	.47
Smoking	77 (52.0)	268 (48.9)	.50
Hypercholesterolemia	90 (60.8)	302 (56,1)	.21
Diabetes mellitus	71 (48.0)	210 (38.3)	.03
Blood analysis			
Hemoglobin, g/dL	14.10 ± 1.51	14.20 ± 1.58	.16
BNP, pg/mL	2572.64 ± 1780.35	2046.45 ± 1635.51	<.001
Sodium, mg/dL	138.18 ± 3.31	138.36 ± 3.14	.52

BNP, B-type natriuretic peptide; COPD, chronic obstructive pulmonary disease; ED, emergency department; HF, heart failure; LVEF, left ventricular ejection fraction.
Unless otherwise indicated, data are expressed as No. (%) or mean ± standard deviation.

interview to detect delirium using the reduced Confusion Assessment Method (CAM).[4] The CAM instrument comprises 4 items. It has been validated for the diagnosis of delirium, and has high sensitivity (94%-100%) and specificity (90%-95%). Delirium is based on 2 primary manifestations (acute onset and fluctuating course, and inattention) and 2 secondary manifestations (disorganized thinking and altered level of consciousness). The diagnosis of delirium requires the presence of both primary manifestations and at least 1 of the secondary manifestations.[4] Demographic, clinical, blood, and time data were collected. Time data were analyzed according to 3 levels: *a)* admission time in the ED until specialist consultation to re-evaluate hospital admission; *b)* time from admission in the ED to admission to an inpatient facility; and *c)* total hospitalization time. This study was an observational study, and so written informed consent was not considered necessary; nevertheless, at the start of the interview all patients were asked for their verbal consent to data collection.

Demographic and other baseline data were analyzed using basic descriptive statistics. Continuous variables are expressed as mean ± standard deviation under the assumption of a normal distribution and categorical variables are expressed as numbers (percentage). Quantitative variables were compared using the Student *t* test, and associations between qualitative variables were determined using the Pearson chi-square or Fisher exact test. Multivariable logistic regression analysis was used to identify the variables associated with the development of delirium during hospitalization. Statistical analysis was performed using the SPSS software package version 20 (SPSS Inc., Armonk, New York, United States).

Table 1 shows the characteristics of the study population. Of the 696 patients with AHF admitted to the hospitalization ward, 148 (21.2%) developed primary manifestations at 48 hours to 72 hours of hospitalization. Group comparisons showed that patients who developed delirium were more frequently male and had a lower left ventricular ejection fraction. The group with delirium had a higher prevalence of a previous medical history of AHF and diabetes mellitus. This group also had higher concentrations of B-type natriuretic peptide at the time of admission to the ED. Finally, this group had longer times from admission to the ED to a hospitalization ward and longer hospitalization times. After adjustment for other covariates, the multivariable analysis showed that time from admission to the ED to admission to a hospitalization ward was an independent predictor of the primary manifestations (Table 2).

The data obtained were similar to data on the prevalence of delirium during hospitalization in patients with AHF.[5] The novelty of this study is that it is the first to analyze the impact of length of stay in the ED on the development of delirium in patients with AHF admitted to a hospitalization ward.

In many Spanish hospitals, the organizational structure of EDs, particularly during morning shifts, leads to the prioritization of care of patients already admitted or external consultations. This situation hinders the optimal management of stable patients who are candidates for hospital admission.[1] The main limitation of the present study is that it is a retrospective observational study conducted in a single hospital, and it therefore suffers from the bias

Table 2
Independent Predictors of Delirium in Patients Hospitalized for Heart Failure. Multivariable Analysis

	OR (95%CI)	*P*
Left ventricular ejection fraction	0.97 (0.95-0.98)	.001
Time from admission to the HES to admission to an inpatient ward, h	1.14 (1.03-1.26)	.01
Total hospitalization time, d	1.08 (1.03-1.13)	.002
Previous episode of heart failure 1.53 (1.02-2.29) 0.03	1.53 (12.2)	.03

95%CI, 95% confidence interval; ED, emergency department; OR, odds ratio.
After adjustment for the following variables: age (*P* = 0.55), sex (*P* = 0.07), B-type natriuretic peptide (*P* = 0.058), and presence of diabetes mellitus (*P* = 0.26).

inherent to such studies. However, the results show the need to reduce the length of time from admission to the ED to admission to a hospitalization ward in order to lower the risk of patients developing delirium. Such reductions would decrease total hospitalization times and therefore lead to lower health costs.

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Current Status of Cardio-Oncology in Spain: A National Multidisciplinary Survey

Situación actual de la Cardio-Oncología en España: encuesta nacional multidisciplinar

To the Editor:

Following the publication of the Spanish Position Paper on Cardio-Oncology,[1] Hematología, in order to evaluate the current status of the field of cardio-oncology in Spain, our National Cardio-Oncology Working Group, composed of representatives of the Spanish Societies of Cardiology (SEC), Medical Oncology (SEOM), Hematology and Hemotherapy (SEHH) and Radiation Oncology (SEOR), conducted a nationwide survey aiming to analyze the perceived importance of the screening and management of cancer-related cardiovascular (CV) complications and the institutional relationship among specialists involved in the care of cancer patients (supplementary material).

We designed an electronic survey distributed nationwide through the 4 above-mentioned scientific societies. Only 1 questionnaire was delivered to division chiefs; however, answers by heads of section and assistants were accepted. The study period was from September 2016 to June 2017. Multiple electronic reminders were sent to nonrespondents during this period.

A total of 202 answers were received: 58 (29%) from medical oncologists, 36 (18%) from hematologists, 51 (25%) from radiation oncologists, and 57 (28%) from cardiologists. The overall response rate was 39%. Most of the responses came from tertiary hospitals (65.3%).

The survey asked the responder to score the perceived importance of various key points related to cardiotoxicity from 1 (least important) to 10 (most important). The Figure reflects the percentage of respondents from each specialty who considered each issue very important (score 8 to 10). Most participants (87%) agreed that potential CV complications related to cancer therapy must be monitored and felt that a structured network among specialties and standardized protocols might improve the complex care of patients with cancer and CV disease (87% and 79%, respectively). They recognized the value of identifying and treating CV risk factors (82%), and 77% of them considered the development of long-term survivorship programs highly important. The existing literature suggests that early cancer treatment interruptions had a negative impact on cancer prognosis[2]; however, the perceived importance of this issue was less consistent across respondents (ranging from 55%-78%).

While most respondents felt that cardiotoxicity had a strong impact on cancer patients, only 24 centers (12%) reported the existence of a structured cardio-oncology unit. Thirty additional respondents (14.8%) had a dedicated cardiologist in charge of the care of patients with cancer-related CV complications. Unfortunately, the remaining 148 centers (73.3%) offered no specific cardio-oncology services, but 76 (13.4%) participants planned to add them in the near future.

Most of the centers reported that the main barriers to the establishment of a cardio-oncology unit were departmental priorities (38.6%), lack of funding (5.9%), and the absence of evidence-based guidelines and attending physicians with specialized training (17%).

In 71% of centers, the baseline assessment of cardiotoxicity risk and the decision to refer patients to the cardiology outpatient clinic were performed by cancer specialists. Follow-up focused on cardiotoxicity was scheduled according to a specific protocol in only 25% of the centers; accordingly, in up to 58% of the centers, this monitoring was carried out without a specific protocol. In all, 94% of participants confirmed the use of echocardiography as the first technique for cardiac monitoring. However, 37% of them reported that they still used isotopic ventriculography due to the lower availability of echocardiography in their centers. Only half of the participants reported the use of cardiac biomarkers in their clinical practice and there was wide heterogeneity among specialties. Once cardiotoxicity occurs, 27% of participants reported that all patients were evaluated by the cardio-oncology team or referred to the cardiology clinic. However, 60% stated that only selected patients were referred to a cardiologist (Table).

Our results reflect a meaningful awareness of the detrimental impact of cardiac toxicity on the outcome of cancer patients. This is in the same line as previous surveys, in which most participants acknowledged CV toxicity from cancer treatments.[3,4] 36% Nevertheless, the percentage of centers with an established cardio-oncology unit is far lower in our country (12%) compared with the rate of 27% reported in hospitals in the United States.[3] Since baseline assessment of cardiotoxicity risk is generally performed by noncardiologists in our setting, local monitoring protocols are