mutation that is probably associated with the disease. The mutation cosegregated with the CPVT phenotype, although in 1 person (II: 9), who also underwent an adrenaline test (Mayo Clinic protocol), ventricular arrhythmias did not meet the diagnostic criteria. Thus, we obtained a cohort of 8 carrier subjects, 7 of whom were found by EST to have the CPVT phenotype (87.5% penetrance). Of the carriers, 75% were male, mean age 46 years (SD, 10), 37% reported prior arrhythmic symptoms, and 100% had a normal electrocardiogram at rest (heart rate, 63 [SD,10] bpm, QTc 400 [SD,27] ms). In the initial EST (duration 9 [SD,2] min), the maximum heart rate was 150 [SD,15] bpm, and the diagnosis was established at a heart rate of 132 (SD,11) bpm.

The carriers were treated with beta-blockers at the maximum tolerated dose, and while the ventricular arrhythmias disappeared during the follow-up EST in 3 subjects (37%), in the remaining 5 (63%) the arrhythmic burden (frequent ventricular premature beats, bigeminy, doublets, nonsustained ventricular tachycardia) persisted enough to add flecainide to the treatment regime, as previously proposed[1] (Table). The proband was implanted with a defibrillator due to presyncope with nonsustained ventricular tachycardia during the EST, despite maximum treatment with beta-blockers (before starting the use of the flecainide treatment in this clinical context[1]). Finally, at 34 (SD,4) months follow-up, all patients were asymptomatic, without arrhythmia or remarkable clinical events (sudden death, syncope, or appropriate defibrillator discharge).

In summary, for the first time we describe the *RYR2* C2277R mutation as a cause of CPVT, in a family with high lethality in younger individuals, with a good diagnostic yield using EST and an excellent response to treatment with beta-blockers, with and without flecainide.

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Adherence to the Mediterranean Diet in Patients With Coronary Artery Disease

Adherencia a la dieta mediterránea de los pacientes con cardiopatía isquémica

To the Editor,

Diet is part of the secondary prevention treatment in patients with coronary artery disease (CAD). The guidelines of American societies usually recommend following a diet that is low in saturated fats, whereas European guidelines also include adopting eating habits based on the Mediterranean diet (MedD); however, this diet is only referred to explicitly in the *National Institute for Clinical Excellence* (NICE) guidelines.

Recently, the PREDIMED[1] study, conducted amongst the Spanish population without coronary disease but at high cardiovascular risk, showed the superior efficacy of the MedD supplemented with virgin olive oil or nuts and dried fruit versus a low-fat diet against cardiovascular morbidity and mortality. In this study, the 14-point Mediterranean diet adherence screener (MEDAS–14) was validated, and a good correlation was shown between proper adherence to the diet and its efficacy.[2] In secondary prevention, the Lyon Diet Heart Study[3] demonstrated the benefit of a diet that closely followed the MedD in reducing reinfarction and clinical manifestations of CAD. Studies conducted in patient cohorts who had suffered acute coronary syndrome observed clinical benefits associated with greater adherence to the MedD, including a reduction in total mortality[4].

We decided to investigate MedD adherence by CAD patients seen at a primary care center, using the MEDAS–14 screener.

We studied 110 patients selected from the total number of patients seen at the primary care centre, aged between 55 and 80 years, who were diagnosed with CAD, in ascending order starting from the oldest diagnostic coding date. Institutionalised patients and patients with health problems that could shorten their life expectancy or who were incapable of answering a questionnaire were excluded. The patients answered the MEDAS–14 screener and completed the data collection protocol, which included sociodemographic variables, domestic habits, physical activity, cardiovascular risk factors, and prescription of cardioprotective drugs.

Eighty per cent were retired males and 60% performed nonintensive regular exercise 3 or more days per week. The principal characteristics of the series are listed in the Table. The mean score on the screener was 8.9 points (scale from 0 to 14), and ≥ 9 points (acceptable adherence criterion) in 63% (95% confidence interval, 54%-72%). Adherence to each of the 14 points
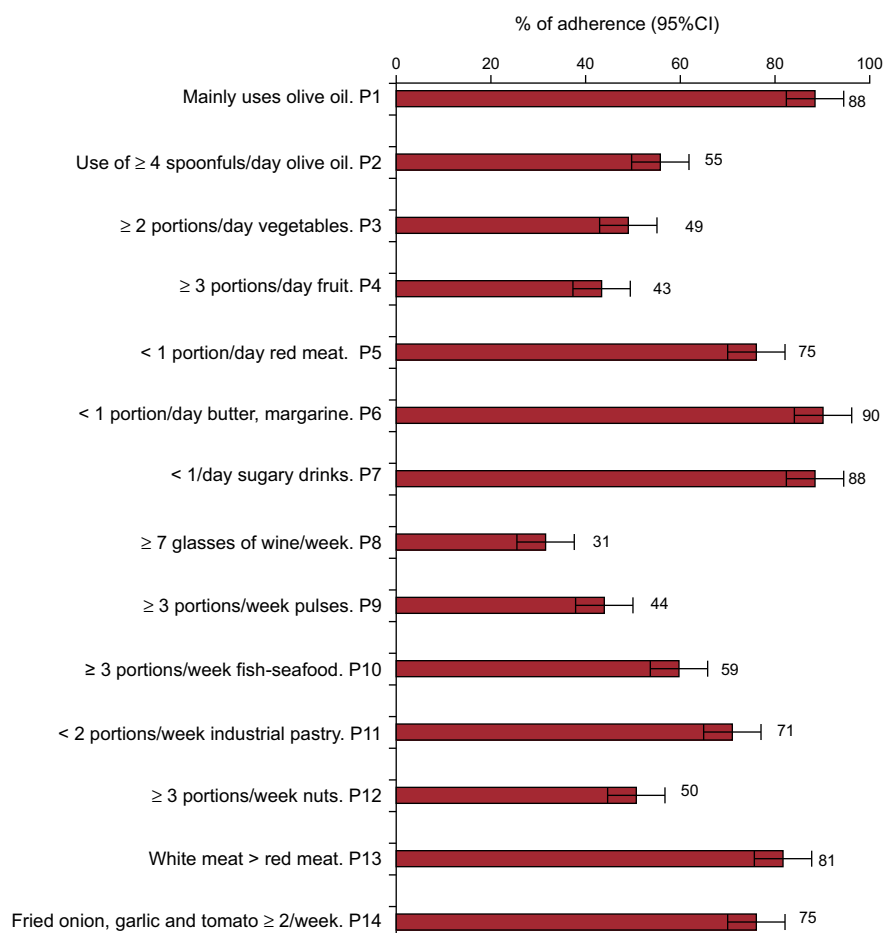
% of adherence (95%CI)

Figure. Adherence to each of the 14 points of the MedD adherence screener (MEDAS-14) of the 110 patients with coronary artery disease. 95%CI, 95% confidence interval.

of the screener is shown in the Figure. Compared with studies in which the same screener was used, the mean score was similar to the baseline score of the PREDIMED[1] study and higher than that of general population surveys.[5] The percentage of patients with acceptable adherence (63% with a score ≥ 9) was also higher compared with the general population,[5] but similar to the baseline of the PREDIMED study, 54%. We did not find any studies in the literature that used MEDAS–14 to screen patients with CAD. We believe it is reasonable for CAD patients to show greater adherence, particularly if the disease is relatively recent, as they would probably be more receptive to an educational intervention to promote the uptake of heart-healthy habits than the general population or patients at low risk.

Identifying the screener items that are not fully met is just as valuable as determining the degree of adherence. According to the recommendations, these include insufficient consumption of wine, fruit, pulses, vegetables and nuts or dried fruits, and olive oil should certainly be added too (Figure).

The general recommendation of restricting, for example, the ingestion of fruit in diabetics, alcohol in hypertensive patients or pulses, or oil and nuts or dried fruit in obese patients may have influenced the results. In order to improve adherence, each item of the MedD should be examined in detail and recommendations should be tailored to each patient's circumstances.

With regard to the established recommendations, the knowledge provided by the PREDIMED study is of particular interest, as it highlights the additional consumption of extra virgin olive oil and nuts or dried fruit, together with the increased adherence to the

Table
Principal Characteristics of Patients Diagnosed With Coronary Artery Disease Who Answered the MEDAS–14 Screener

Patients with CAD, n	110
Sex	
Males	88 (80)
Females	22 (20)
Age, mean (SD), years	67.6 (8.9)
Socioeconomic level	
Actively employed	9 (8)
Pensioner	96 (87)
Unemployed or with no benefits	5 (5)
Physical activity (Caspersen and Powell)	
Sedentary	14 (13)
Irregular	22 (20)
Regular, nonintensive	66 (60)
Regular, intensive	8 (7)
CVRF	
Smoker	8 (7)
Arterial hypertension	75 (68)
Dyslipidemia	69 (63)
Diabetes mellitus	40 (36)
Manifestation of CAD[*]	
Angina	44 (40)
ACS	69 (63)

Table (Continued)

Principal Characteristics of Patients Diagnosed With Coronary Artery Disease Who Answered the MEDAS–14 Screener

Duration of CAD	
0-2 years	40 (36)
3-5 years	40 (36)
6-12 years	20 (18)
12 or more years	10 (9)
Seen in hospital in the past 12 months by	
Cardiologist	53 (48)
Cardiology nurse	8 (7)
Cardiology accident and emergency services	11 (10)
Admitted to cardiology	9 (8)
Treated with cardioprotective drugs	
Statins	104 (95)
ACE-inhibitors or ARA-II	78 (71)
Beta-blockers	80 (73)
Antiplatelet agents	105 (95)
MEDAS-14, mean (SD), score	8.9 (2.3)
< 9 points	41 (37)
≥ 9 points	69 (63)

ACE-inhibitors, angiotensin converting enzyme inhibitors; ACS, acute coronary syndrome; ARA–II, angiotensin II receptor antagonist; CAD, coronary artery disease; CVRF, cardiovascular risk factors; MEDAS-14, 14-point mediterranean diet adherence screener.

* Some patients suffered angina and ACS.

The values express No. (%) or mean (standard deviation).

MedD, as key elements for the superior efficacy of this diet compared with a low-fat diet.

It is likely that the MedD will be clearly reinforced as an intervention to be included in nonpharmacological treatment for preventing cardiovascular disease,[6] thanks to the possibility of new studies backing the results published by de Lorgeril et al.[3]

The data from this study show that a majority of patients with CAD (63%) had acceptable adherence to the MedD. The application of the MEDAS–14 screener makes it possible to identify which aspects require improvement and provides the opportunity to focus and adapt a dietary intervention.

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Theoretical Impact on Coronary Disease of Using a Computerized Clinical Decision Support System in the Prescription of Lipid-lowering Treatment

Impacto teórico en la enfermedad coronaria de usar un sistema informatizado de ayuda en la prescripción del tratamiento hipolipemiante

To the Editor,

Low-density lipoprotein cholesterol (LDL-C) is a strong cardiovascular risk factor, especially for coronary artery disease.[1] However, in Spain, there is plenty of room for improvement in increasing the number of patients at very high cardiovascular risk who attain lipid goals.[1,2] Recently, our group published the results of the first validation study of the computerized European clinical decision support system (CDSS) specific to lipid-lowering therapy (designated in Spanish as HTE-DLP).[3] The study shows that the number of patients who reach the treatment goal of LDL-C < 70 mg/dL increases 4.4 times with use of the HTE-DLP by experts in vascular risk.[3] The objective of the present study was to assess the theoretical impact on the frequency of coronary artery disease of using the HTE-DLP throughout Spain with the CASSANDRA-REGICOR methodology.[4]

The CASSANDRA-REGICOR system permits an estimate of the number of fatal and nonfatal coronary events that would occur in the Spanish population in the next 10 years in different scenarios according to trends in prevalence of cardiovascular risk factors. The system uses incidence data on coronary disease and risk factor prevalence from the REGICOR study. Extrapolation to Spain is based on data from the IBERICA study (incidence) and the DARIOS study (risk factor prevalence). The number of coronary events was predicted for 2010 to 2020 in patients aged between 35 and 75 years old. Population projections were provided by the Catalan Statistics Institute (IDESCAT) and Spanish National Statistics Institute (INE). The application enables an assessment of the impact of different scenarios of risk factor prevalence.[4]

The HTE-DLP is the first CDSS for lipid-lowering treatment developed in Spain (RTA98/09) (Figure). It is based on the 2011 European guidelines for lipid-lowering treatment. Taking