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ORIGINAL ARTICLE

Atherogenic dyslipidemia: prevalence and management in lipid clinics☆

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KEYWORDS
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Abstract
Background and objective: Atherogenic dyslipidemia, which is characterized by increased triglyceride levels and reduced HDL cholesterol levels, is underestimated and undertreated in clinical practice. We assessed its prevalence and the achievement of therapeutic objectives for HDL cholesterol and triglyceride levels in patients treated at lipid and vascular risk units in Spain.
Patients and method: This was an observational, longitudinal, retrospective, multicenter study performed in 14 autonomous Spanish communities that consecutively included 1828 patients aged ≥18 years who were referred for dyslipidemia and vascular risk to 43 lipid clinics accredited by the Spanish Society of Arteriosclerosis. We collected information from the medical records corresponding to 2 visits conducted during 2010 and 2011–2012, respectively.
Results: Of the 1649 patients who had a lipid profile in the first visit (90.2%), 295 (17.9%) had atherogenic dyslipidemia. The factors associated with atherogenic dyslipidemia were excess weight/obesity, not taking hypolipidemic drugs (statins and/or fibrates), diabetes, myocardial infarction and previous heart failure. Of the 273 (92.5%) patients with atherogenic dyslipidemia that had a lipid profile in the last visit, 44 (16.1%) achieved the therapeutic objectives for HDL cholesterol and triglyceride levels. The predictors of therapeutic success were normal weight and normoglycemia.

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[1] Additional material can be found in this article (Annex) in electronic format.

Conclusion: One of every 6 patients treated in lipid and vascular risk units had atherogenic dyslipidemia. The degree to which the therapeutic goals for HDL cholesterol and triglyceride levels were achieved in these patients was very low.

PALABRAS CLAVE
Dislipemia aterogénica;
Colesterol HDL;
Epidemiología;
Prevención cardiovascular;
Unidades de lípidos;
Triglicéridos

Dislipemia aterogénica: prevalencia y control en las unidades de lípidos

Resumen
Antecedentes y objetivo: La dislipemia aterogénica, caracterizada por un aumento de triglicéridos y descenso del colesterol HDL, está infravalorada e infratratada en la práctica clínica. Hemos evaluado su prevalencia y la consecución de los objetivos terapéuticos de colesterol HDL y triglicéridos en los pacientes atendidos en unidades de lípidos y riesgo vascular en España.
Pacientes y método: Estudio observacional, longitudinal, retrospectivo, multicéntrico, realizado en 14 Comunidades Autónomas, que incluyó de forma consecutiva a 1.828 pacientes ≥18 años de edad remitidos por dislipemia y riesgo vascular a 43 unidades de lípidos acreditadas por la Sociedad Española de Arteriosclerosis. Se recogió información de la historia clínica correspondiente a dos visitas realizadas durante los años 2010 y 2011–12, respectivamente.
Resultados: De los 1.649 pacientes que disponían de un perfil lipídico en la visita inicial (90,2%), 295 (17,9%) tenían una dislipemia aterogénica. Los factores asociados a la dislipemia aterogénica fueron el sobrepeso/obesidad, no recibir fármacos hipolipemiantes (estatinas y/o fibratos), diabetes, infarto de miocardio e insuficiencia cardiaca previos. De los 273 (92,5%) pacientes con dislipemia aterogénica que disponían del perfil lipídico en la última visita, 44 (16,1%) alcanzaron el objetivo terapéutico de colesterol HDL y triglicéridos. Los factores predictivos del éxito terapéutico fueron el normopeso y la normoglucemia.
Conclusión: Uno de cada seis pacientes atendidos en las unidades de lípidos y riesgo vascular presenta una dislipemia aterogénica. El grado de consecución del objetivo terapéutico en colesterol HDL y triglicéridos en estos pacientes es muy bajo.

Background

The treatment of hypercholesterolemia has become a fundamental pillar of cardiovascular risk prevention.[1] However, a high percentage of patients, in particular those with cardiovascular disease, metabolic syndrome or type 2 diabetes mellitus, have lipoprotein abnormalities that are not limited exclusively to increased low-density lipoprotein (LDL) cholesterol levels but frequently also have lowered plasma levels of high-density lipoprotein (HDL) cholesterol and/or high triglyceride levels.[2–5] Even for patients with optimal LDL cholesterol levels, there is still a high residual risk of vascular complications related to atherogenic dyslipidemia, characterized by low HDL cholesterol levels, hypertriglyceridemia and qualitative abnormalities in LDL particles.[6]

Although HDL cholesterol and hypertriglyceridemia are recognized as independent risk factors,[1,7,8] studies that include the overall assessment of the lipid profile[9–13] demonstrate that in clinical practice atherogenic dyslipidemia is generally underestimated and, as a result, undertreated.[14] An epidemiological, observational, retrospective study was therefore conducted to assess the diagnosis and control of dyslipidemia in lipid and vascular risk clinics of the Spanish Society of Arteriosclerosis (EDICONDIS-ULISEA).[15] The initial stage reported the rate of LDL cholesterol control according to the objectives of the current European guidelines for cardiovascular risk prevention at that time.[8] This study estimated the prevalence and degree of control of atherogenic dyslipidemia by patients treated in these lipid and vascular risk clinics.

Patients and methods

The EDICONDIS-ULISEA study included an observational, longitudinal, retrospective, multicenter and national cohort, in which 43 lipid and vascular risk departments belonging to 14 autonomous communities consecutively included 1828 patients of both sexes, 18 years of age and older, referred for dyslipidemia and cardiovascular risk between June and October 2010 (initial visit). The study protocol was approved by the Clinical Research Ethics Committee of the Hospital Carlos III of Madrid and has been previously described.[15] Information was collected from the patients' medical history corresponding to 2 consultations performed in the lipid clinic. The first concerned the initial visit, and the second concerned the last recorded consultation in the clinic. The data collection period extended from December 1, 2011 to February 29, 2012.