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International Journal of Clinical Pharmacology & Toxicology (IJCPT)
ISSN 2167-910X

Dislipidemias in Patients with Cardiopathy Isquemica

Review Article

Alonso-Rodríguez D[1*], Alarcón-Martínez Y[2], Moreno-Téllez E[3], MCs. Niurka González Costs[4]

[1] Bachelor Of Science pharmaceutical
[2] First-degree specialist in Clinical Laboratorio.
[3] Second-degree specialist in Clinical Laboratorio.
[4] Master in scientific social studies

Abstract

The dislipidemias are a risk factor well recognized of the cardiovascular diseases and constitute a problem of public health. A descriptive study in 150 patient elders of 30 years with diagnosis of Izquemic Cardiopathyes accomplished itself for the sake of identifying dislipidemias in patients of high cardiovascular risk that they helped the high-technology General Medical Center state James Mariño Aragua, at the Republic Bolivariana of Venezuela, that you constituted the sign of study from October 2011 to October 2012. They used quantitative and qualitative variables like weight, age, sex, pathological personal background, risk factors cardiovascular associates, seric levels of total cholesterol, triglycerides, HDL cholesterol, LDL cholesterol VLDL cholesterol. 63 percent of patients with dislipidemias were detected, being hypercholesterolemia the more alteration frequently found. The ages understood between 41 and 60 years evidenced the bigger frequency.

***Corresponding Author**:
Dalyla Alonso Rodríguez,
Diagnostic high-technology General Medical Center James Mariño,
Aragua, Republic Bolivariana of Venezuela.
E-mail: dalyla@finlay.cmw.sld.cu

Received: February 20, 2013
Accepted: February 27, 2013
Published: February 28, 2013

Citation: Alonso-Rodríguez D, Alarcón-Martínez Y, Moreno-Téllez E, MCs. Niurka González Costs (2013) Dislipidemias in Patients with Cardiopathy Isquemica. Int J Clin Pharmacol Toxicol. 2(2), 54-57. **doi: http://dx.doi.org/10.19070/2167-910X-1300011**

Introduction

The dislipidemias are a group of alterations of lipoproteínas's metabolism that are correlated with a cardiovascular high risk.

During last the value of the triglycerides like cardiovascular risk factor has put three decades itself in doubt.[1,2] metodological troubles have been one of the reasons that originated the controversy. The majority of the epidemiologic studies that the cardiovascular risk to which the concentrations of cholesterol are correlated and triglycerides have measured have done it assuming that lipids are independent variables among themselves and than ailments, in that they raise these parameters, have a similar aterogenic. [3] However, these suppositions do not agree with recent proofs. [4] the type and lipoproteín's quantity of various classrooms with different capabilities to deposit in ateroma's plate reflect The concentration of these lipids. [5]

The mechanisms for which the hiperlipidemias's bigger cardiovascular risk is explained are multiple. [6,7] a hiperlipidemia's existence is synonymous of the accumulate in one or plus types plasma of lipoproteínas that they have the capacity to deposit in ateroma's plates. The majority of the cases have plasmatic concentrations abnormally highs of remnants of quilomicrones, of lipoproteins of intermediate or lipoproteins density of low density. [8,9]

The atheroclerotic cardiovascular disease represents the principal cause of the mortality of the occidental world, implicating high costs in the services of health.

Although over 200 risk factors for this disease have been identified, epidemiologic recent studies have proven that you level them lifted of cholesterol, particularly the ones belonging to LDL continue cholesterol being the risk factor better established for the development of the cardiovascular disease.[10,11]

The success of any preventive measure depends on in great part the knowledge of the risk factors and of the impact that its modification can have on the progression of the disease. In the case of the cardiovascular disease, we know a good number of risk factors, and fortunately, many are modifiable, for this reason we intended to Identify the dislipidemias in patients with izqiemic Cardiopathies and to relate with the risk factors cardiovascular associates.

Method

A descriptive research came true, taking like universe the older individuals of 30 years (150 patients) that they helped to the consultation of cardiology of high-technology General Diagnostico's Medical Center James Mariño located in the status Aragua at the Republic Bolivariana of Venezuela, in the period from October 2011 to October 2012.

The 150 patients that constituted the universe conformed the sign

of our study.
Pregnant women were excluded, patients that suffered intense infarct of the myocardium with less than a month of convalescence, patients with intense infections and those that did not wish to take part in investigation.

The qualitative and quantitative used variables were gathered through the case history of the studied patients and the records of reports of the clinical laboratory of the center.

Procedures and collecting techniques

The physical measurements came true in the consultation of cardiology for the doctor and the nurse. The measurements of laboratory sold off at Clinical Química's department of the Clinical Laboratory of the General Santiago Mariño themselves.

The used variables matched:

Sex
Age (years)
Seric Concentration of total cholesterol (mmol L)
Seric concentration of HDL (mmol L)
Seric concentration of LDL (mmol L)
Seric concentration of VLDL (mmol L)
Seric concentration of triglycerides (mmol L)

The determination of the seric levels of total cholesterol, HDL and triglycerides you accomplished in two occasions each patient, signs they were prosecuted in the automated analyst HITACHI 902, using enzymatic colorimetric methods.

They were guided to the patients to spare them fast of 12 hours and no taking in alcohol 24 previous hours to the sample take.

Once the concentration of total cholesterol was determined, HDL and triglycerides. Friedewald's formula came from to the calculation LDL

LDL c total cholesterol (triglycerides/2.2) - HDL cholesterol

In the case of the patients with moral values of superior triglycerides to 400 mg/dL (4,6 mmol L), Friedewald's formula loses validity and the cholesterol served the purpose of indicator not HDL calculated of the following form:

Cholesterol not total HDL Colesterol - HDL c.
The desirable levels of cholesterol not HDL is of 30 mg/dL more than LDL's level c.
The VLDL obtained itself by means of the reason:

VLDL Triglycerides/2.2

Referential interval mg/dL (mmol L):
Total cholesterol < 200 (5,2)

HDL c > 36 (0,9)
LDL c <129 (3,4)
VLDL 30 (0,7)
Triglycerides < 200 (2,3)

Used reproducibility and repetibility like techniques to control exactness and precision, in addition to the multi-calibrator themselves freeze-dried controls Precinorm Or and Precipath Or with standardized concentrations known in normal and pathological range.

Pentium created a data base processed in a microcomputer for oneself with the information that was obtained 4 by means of the statistical program SPSS – 10. The descriptive statistical method of absolute and relative frequency was applicable. The liked Chi's method was used for the statistical validation.

Results

Source: Primary record of data.

Table 1 Characterization of the patients according to age and sex.

Groups of ages	Sexo				Total	
	Female		Male			
	No.	%	No	%	No.	%
30 – 40	4	2.7	5	3.3	9	6.0
41 – 50	18	12.0	27	18.0	45	30.0
51 – 60	22	14.7	29	19.3	51	34.0
61 – 70	20	13.3	11	7.3	31	20.6
> of 70	8	5.3	6	4.0	14	9.3
Total	72	48.0	78	52.0	150	100.0

Source: Primary record of data.

Table 2. Dislipidemias according to the obtained results.

DISLIPIDEMIAS	No.	%
Yes	95	63.3
No	55	36.7
Total	150	100.0

Source: Primary record of data p(0.05*)

Table 3: Dislipidemias identified according to results.

DISLIPIDEMIAS	No.	%
Hypercholesterolemia	36	38.0
Hipertrigliceridemia	19	20.0
Mixed	17	17.8
Hipoalfalipoproteinemia	23	24.2
Total	95	100

Source: Primary record of data.

Table 5. Hypercholesterolemia and your relation with age groups and sex

Groups of ages	HIPERCOLESTEROLEMIA				Total	
	Female		Male			
	No.	%	No	%	No.	%
30 – 40	1	2.7	3	8.3	4	11.1
41 – 50	5	13.8	**11**	**30.5**	16	44.4
51 – 60	6	16.6	**7**	**19.4**	13	36.1
61 – 70	3	8.3	-	-	3	8.3
> of 70	-	-	-	-	-	-
Total	15	41.6	21	58.3	36	100.0

Source: Primary record of data.

Table 6. Hipertrigliceridemia according to age and sex.

Groups of ages	HIPERTRIGLICERIDEMIA				Total	
	Female		Male			
	No.	%	No	%	No.	%
30 – 40	-	-	2	10.5	2	10.5
41 – 50	1	5.3	**3**	**17.8**	4	21.0
51 – 60	3	15.8	**4**	**21.0**	7	36.8
61 – 70	2	10.5	2	10.5	4	21.0
> of 70	2	10.5	-	-	2	10.5
Total	8	42.1	**11**	**57.9**	19	100.0

Source: Primary record of data.

Table 7. Mixed Dislipidemia and your relation with age groups and sex

Groups of ages	DISLIPIDEMIA MIXED				Total	
	Female		Male			
	No.	%	No	%	No.	%
30 – 40	-	-	1	5.88	1	5.88
41 – 50	2	11.76	**2**	**11.76**	4	23.52
51 – 60	2	11.76	**4**	**23.52**	6	35.29
61 – 70	3	17.64	2	11.76	5	29.4
> of 70	1	5.8	-	-	1	5.8
Total	8	47.05	**9**	**52.94**	17	100.0

Source: Primary record of data.

Table 8. Hipoalfalipoproteinemias and your relation with age groups and sex

Groups of ages	HIPOALFALIPOPROTEINEMIAS				Total	
	Female		Male			
	No.	%	No	%	No.	%
30 – 40	1	4.34	2	8.69	3	13.04
41 – 50	2	8.69	**4**	**17.38**	6	26.08
51 – 60	4	17.39	**5**	**21.73**	9	39.13
61 – 70	2	8.69	2	8.69	4	17.39
> of 70	1	4.34	-	-	1	4.34
Total	10	43.47	**13**	**56.52**	23	100.0

Discussion

The success of any preventive measure depends on in great part the knowledge of the risk factors and of the impact that its modification can have on the progression of the disease. In the case of the cardiovascular disease, we know a good number of risk factors, and fortunately, many are modifiable, I eat in the case of the dislipidemias[12].

The population's bigger percentage manifested itself with dislipidemias, for a 63.3 %, being the most frequent alteration hypercholesterolemia. The positive and gradual relation of the concentrations of cholesterol with mortality and morbility for izquemic cardiopathy, one observes in men and women, young people and old men, in all the races, and so much I eat in patients with clinical symptoms of cardiovascular disease in healthy people [13].

The hypertriglyceridemia, dislipidemia mixed, as well as the hipoalfalipoproteinemia it was more frequent in the patients with ages understood between 51 and 60 years, representing this patients' group of bigger cardiovascular risk, epidemiologic recent studies have proven that you level them lifted of cholesterol, particularly the ones belonging to LDL continue cholesterol being the risk factor better established for the development of the cardiovascular disease.

This disease is responsible for 466 over 000 yearly deaths, and those people that outlive some intense coronary event, present 15 times more fatal risk than the remaining population, what depends on also other risk factors and clinical complications [14,15].

Groups patients' poblacionales of the third age manifested themselves without alterations in the levels of lipids.

The dislipidemias's control is, next to the eradication of tobacco addiction and the control of the HTA, diabetes, obesity and the sedentary life, join of the principal strategies for the control of the cardiovascular diseases. These strategies attempt avoiding the implantation of habits and styles of life that favor the disease (primary prevention), to avoid the appearing of new cases of disease between free people of her same (primary prevention), and enter the ones that right now have suffered a cardiovascular previous episode (secondary prevention). [16]

Findings

- Hypercholesterolemia is the most frequent dislipidemia.
- The dislipidemias show up with bigger frequency in the masculine sex and in the ages understood between 41 and 60 years.

Recommendations

- Developing an intense communal work for the implementation of a program of comprehensive attention of the dislipidemias

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