

# FAMILIAL HYPERCHOLESTEROLEMIA INCIDENCE AMONG CORONARY ARTERY DISEASE PATIENTS IN THE EGYPTIANS AND THE APPLICABILITY OF DUTCH DIAGNOSTIC CRITERIA

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## Introduction

Familial hypercholesterolemia (FH) is a hereditary lipoprotein metabolic anomaly characterized by raised blood levels of low-density lipoprotein (LDL) cholesterol and an increased risk of developing early cardiovascular diseases. Clinical features, family history, elevated LDL-cholesterol values, and more recently, genetic testing, are the cornerstones for the diagnosis. Treatment and early diagnosis are essential. Since elevated levels of low-density lipoprotein (LDL) cholesterol are the primary cause of atherosclerosis. Novel drugs, LDL apheresis, and other experimental therapy can be used in some subgroups of FH patients, improving their prognosis. The cornerstone of treatment for this illness is the use of statins. This review attempts to demonstrate how common FH is among CVD patients as opposed to normal people in our community and the applicability of Dutch diagnostic criteria in these patients

## METHODS

After informed consent was taken from patients, all the patients was subjected to the following:

**Complete history**

**Physical examination**

**Lipid profile testing**

**Dutch diagnostic criteria:**

Dutch diagnostic criteria will be applied to all subjects with LDL-C more than 155 mg/dl to show the scope of the applicability of those criteria in these patients and for economic reasons, no genetic tests will be done for diagnostic confirmation.

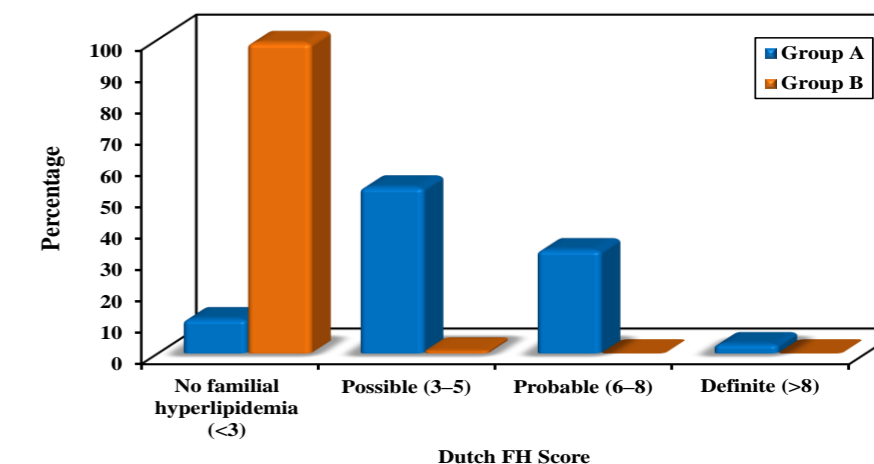


Figure: Comparison between the two studied groups according to Dutch FH Score

## Aim of the Work

The aim of this study was to assess the incidence of FH among patients with coronary heart disease and the applicability Dutch diagnostic criteria in these patients.

## Results

Table : Comparison between the two studied groups according to Dutch FH Score

Dutch FH Score	Group A (n=100)		Group B (n=100)		Test of sig.	p
	No.	%	No.	%		
No familial hyperlipidemia (<3)	11	11.0	99	99.0	c <sup>2</sup> = 186.815*	MC <sub>p</sub> <0.001*
Possible (3-5)	53	53.0	1	1.0		
Probable (6-8)	33	33.0	0	0.0		
Definite (>8)	3	3.0	0	0.0	U= 111.500*	<0.001*
Min. – Max.	0.0 – 11.0		0.0 – 3.0			
Mean ± SD.	4.74 ± 1.89		0.26 ± 0.50			
Median (IQR)	5.0 (4.0 – 6.0)		0.0 (0.0 – 0.0)			

**Group A:** CAD patients, **Group B:** Screening non CAD (normal population)

χ<sup>2</sup>: Chi square test MC: Monte Carlo U: Mann Whitney test

p: p value for comparing between the studied groups

\*: Statistically significant at p ≤ 0.05

## Conclusion

It is clearly evident that higher LDL is a major risk factor for coronary heart disease. Results underscore a relatively high prevalence of potential FH in patients with a recent CAD event. Therefore, an early identification of these subjects may help improve the management of their high CV risk and, by cascade screening, identify possible FH relatives

## Subjects and Methods

### PATIENTS

The study was included two hundred prospective patients presented to Alexandria University and Medical Research Institute hospitals. Patients were divided into two groups. Group A was included one hundred patients with proven coronary artery disease and group B was included one hundred cases that was undergo routine screening for hyperlipidemia.