

(2001/11/6 2001/10/20)

(/ 100) (Atenolol)
 TG T-cho
 - HDL-C -
 VLDL-C - LDL-C
 - / (LDL-C) -
 - / (T-cho) (HDL-C)
 (152) .(HDL-C)
 (40) (/ /100) (Tenormin) (112)
 (40)
 . ()
 T-cho/HDL-C LDL-C / HDL-C)
 HDL-C (T-cho LDL-C VLDL-C TG
 TG T-cho/HDL-C LDL-C / HDL-C)
 HDL-C (T-cho LDL-C VLDL-C
 TG T-cho/HDL-C
 T-cho VLDL-C

Effect of Atenolol on the Level of Lipids in Hypertensive Patients

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ABSTRACT

This clinical study was designed to evaluate the effect of Atenolol at a dose of (100 mg / day) on the level of serum lipids namely total cholesterol (T-cho), triglyceride (TG), high density lipoprotein – cholesterol (HDL-C), low density lipoprotein – cholesterol (LDL-C), very low density lipoprotein – cholesterol (VLDL-C) as well as the ratios of LDL-C/HDL-C and T-cho/HDL-C. (152) patients were diagnosed as having hypertension, (112) of them were treated with Atenolol (tenormin) (100mg/day), the remaining (40) patients have been hypertensives who have not been treated for hypertension and for the sake of comparison, samples have been taken from (40) normal individuals (the control group) of both sexes.

It was found that Atenolol increased the ratio of LDL-C/HDL-C, T-cho/HDL-C, TG, VLDL-C, LDL-C and T-cho while it decreased the level of HDL-C in blood serum of both sexes as compared with the non treated hypertensives. The results also demonstrated that hypertension caused an increase in the LDL-C/HDL-C and T-cho/HDL-C ratios, LDL-C, TG, VLDL-C and T-cho while it caused slight decrease in HDL-C in blood serum of both sexes as compared with control group.

Nevertheless, it was found that the increase in the ratio of T-cho/HDL-C and the levels of TG, VLDL-C and T-cho in blood serum of hypertensive females was slightly greater than that in their counter part males.

(Beta-blocker)

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Catecholamine

(Wilson et al., 1991 ; Duffy et al., 1991)

(Rang and Dale,1987) Hypertension

(Laurence et al., 1997)

Angina Pectoris

Unstable Anina

(Soma et al., 1989)

Myocardial Infarction

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(Mangano et al., 1996)

(Petro, 1997)

.(Mardikar et al., 1995)

(Duffy et al., 1991) Acute Myocardial Infarction

(4-2)

(Kirch et al., 1981) %(60-40)

.(Rubin et al., 1982)

%(10)

%(90)

(Edwards and Bouchier, 1991)

%(20)

(Goodman et al., 1992)

(Cruickshank and Prichard, 1987)

(Wadwarth et al., 1991) (6-3)

(Wall, 1979 ; Cove and Kirckc, 1983)

(Ress, 1979)

(Shaw and Gopalk, 1982)

(Weber, 1982) Diplopia

(Lewis and Cochrance, 1985)

Dyspnea

Artial Fibrillation

(Giorgi et al., 1988) Dizziness

(/ 100)

(112)

(33 79)

(40) .(6 -)

(/ 100)

(18 22)

(20 20)

(40)

(70-40)

()

Standard Kits

.T-cho TG HDL-C

Bio Merieux

Duncan

B

A

(P<0.05)

(1)

T-cho

.(Day et al., 1982)

(1988) Agele Krone

(1969) Freis

TG

(2)

.(Simons et al., 1992)

(Beta - blockers)

GT

.Lipase

(2)

.(Day et al., 1982)

TG

(1951) Wiliens

185.3 ± 15.8	DC 188.15±16.18	D 182.6 ±15.33	(100/) ±	
2.5	3.61	3.42		
40	20	20		
12.63±212.79	BA 216.86 ± 8.70	BC 208.72±15.82	(100/) ±	
1.99	1.85	3.73		
40	22	18		
218.04 ± 9.9	A 222.4±7.09	BA 213.69±13.5	(100/) ±	
0.93	0.79	2.35		
112	79	33		

(P < 0.05)

: 2

146.8±11.3	E 150.6±9.68	F 143.05 ±11.85	(100/) ±
1.78	2.16	2.65	
40	20	20	
177.2±14.5	C 182.68±10.2	D 171.72±3.32	(100/) ±
2.29	2.17	0.78	
40	22	18	
195.5±11.63	A ±11.24 202.12	B 189.81±6.7	(100/) ±
1.09	1.26	1.16	
112	79	33	

.(P < 0.05)

HDL-C

(3)

Simons

(1992)

Lecithin Cholesterol Acyl Transferase

HDL-C

(1988) Nagele Krone

HDL

HDL

Lipoprotein Lipase

()

.(1988)

Victor

HDL-C

.(1991)

Catalano

-

: 3

42.65 ±8.1	B 39.9 ±7.3	A 45.4 ±5.91	- (100/) ±	
1.28	1.63	1.32		
40	20	20		
38.86±3.31	B 36.22±3	A 41.50±3.83	- (100/) ±	
0.52	0.63	0.9		
40	22	18		
31.50±5.59	D 29.11±4.1	C 33.9±4.23	- (100/) ±	
0.52	0.46	0.73		
112	79	33		

.(P < 0.05)

(1993) LDL-C Dujovne (4)

LDL-C
(1988) Smith Wyngaarden
(5)

VLDL-C

LDL VLDL

(1988) Victor

- : 4

113.36±14.9	D 118.13±7.2	ED 108.59±19.35	- (100/) ±	
2.36	1.62	4.32		
40	20	20		
138.51±11.2	B 144.11±7.6	C 132.92±14.8	- (100/) ±	
1.77	1.62	3.49		
40	22	18		
147.44±9.29	A 153.05±7.6	B 141.83±12.5	- (100/) ±	
0.87	0.85	2.17		
112	79	33		

(P < 0.05)

VLDL-C

(5)

.(1988) Smith Wyngaarden

-

: 5

29.36±2.3	E 30.12±1.9	F 28.61±2.45	-	(100/) ±
0.63	0.42	0.54		
40	20	20		
35.43±1.9	C 36.53±2.04	D 34.3±0.66	-	(100/) ±
0.3	0.43	0.15		
40	22	18		
39.1±2.33	A 40.24±2.26	B 37.96±1.35	-	(100/) ±
0.22	0.25	0.23		
112	79	33		

.(P < 0.05)

(6)

HDL-C/T-cho

T-Cho

(Tietz, 1987) HDL-C

(HDL-C/T-Cho)

HDL-C

T-Cho

- / : 6

4.36±0.76	C 4.71±0.56	D 4.02±0.76	- / (100/) ±	
0.12	0.12	0.17		
40	20	20		
5.5±6.62	B 5.98±0.24	C 5.02±0.59	- / (100/) ±	
0.09	0.05	0.13		
40	22	18		
6.96±0.7	A 7.63±0.52	B 6.30±0.6	- / (100/) ±	
0.06	0.05	0.1		
112	79	33		

.(P < 0.05)

(LDL-C/HDL-C) (7)

(Tietz, 1987) HDL-C

LDL-C

- / - : 7

2.67±0.68	C 2.96±0.47	D 2.39±0.67	/	-	(100/) ±
0.1	0.1	0.14			
40	20	20			
3.58±0.5	B 3.97±0.2	C 3.2±0.46	-	/	(100/) ±
0.07	0.04	0.1			
40	22	18			
5.1±0.66	A 5.25±0.43	B 4.18±0.47	-	/	(100/) ±
0.06	0.04	0.08			
112	79	33			

.(P < 0.05)

HDL-C/LDL-C

(Tietz, 1987) HDL-C

LDL-C

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