

Study of the Relationship between Chitotriosidase and Atherosclerosis in a Sample of Egyptian Patients with T2DM

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that CHIT1 activity cannot be used to monitor progression of atherosclerosis [8].

ChT measurement is easy, reproducible, reliable, and cost
It is always possible to make routine ChT measurements on daily basis for each patient. Also, ChT is a very stable enzyme which can allow

		Initially	Follow up	Test value	p value	Sig.
			after 6 months			
		No.=16	No.=16			
FBG (mg/dl)	Mean ± SD	213.75 ± 47.55	159.69 ± 37.10	4.113	0.001	HS
	Range	140-310	60-220			
2HP.P (mg/dl)	Mean ± SD	275.63 ± 44.40	218.94 ± 26.70	7.19	0	HS
	Range	180-340	175-265			
HbA1c (%)	Mean ± SD	9.21 ± 1.00	8.71 ± 0.83	5.242	0	HS
	Range	7.7-11	7.5-10.1			
Chol (mg/dl)	Mean ± SD	243.94 ± 34.08	209.19 ± 19.07	5.612	0	HS
	Range	170-290	170-245			
Triglycerides (mg/dl)	Mean ± SD	226.94 ± 135.56	178.81 ± 66.11	2.588	0.021	S
	Range	115-575	100-330			
LDL (mg/dl)	Mean ± SD	134.06 ± 33.29	114.25 ± 27.25	4.231	0.001	HS
	Range	70-200	70-185			
HDL (mg/dl)	Mean ± SD	33.94 ± 12.01	34.45 ± 9.30	-0.759	0.466	NS
	Range	17-56	17-49			
Chitotriosidase (ng/ml)	Median(IQR)	2.88 (2.5-3.98)	2.85 (2.5-3.9)	-1.083	0.279	NS
	Range	2-6.5	2.1-6.1			
Carotid artery duplex IMT (mm)	Mean ± SD	1.04 ± 0.12	1.04 ± 0.07	-0.1	0.921	NS
	Range	0.70-1.20	1-1.2			

results were in agreement with Turan et al. found in their study in 2017, that the chitotriosidase is closely related to HbA1c level being its activity increased in the patients having HbA1c > 10% than those of the control group [12]. But this result is against Yildiz et al., who reported in his study in 2013, there is no correlation between chitotriosidase activity and HbA1C [13].

current study found that there was a positive correlation between chitotriosidase and cholesterol ($r=0.431$) with ($p \text{ value} < 0.01$), and triglycerides ($r=0.322$) with ($p \text{ value} < 0.05$). results were distinct and against urawska-Plaksej et al., Guclu et al., Turan et al., Boot et al. who reported previously the lack of relationship between