EVALUATION OF ASSOCIATION BETWEEN ATHEROGENIC INDEX OF PLAS AND INTIMA–MEDIA THICKNESS OF THE CAROTID ARTERY FOR SUBCLI ATHERSCLEROSIS IN PATIENTS ON MAINTENANCE HEMODIALYSIS
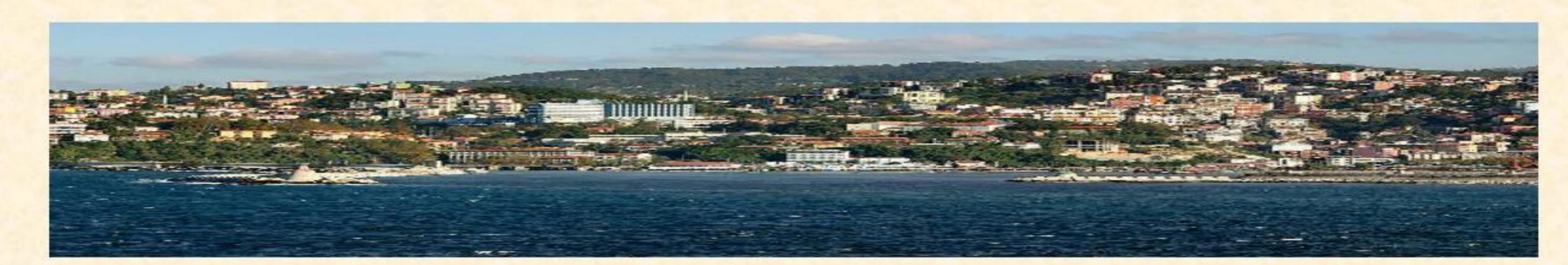
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INTRODUCTION AND AIMS: Increased carotid intima media thickness (CIMT) is a subclinical atherosclerosis marker. It wa that atherogenic index of plasma (AIP=log(TG/HDL-c)) is correlated with size of the lipoprotein particles. We investiga correlation between AIP and CIMT which is a subclinical atherosclerosis marker, in hemodialysis (HD) patients.

METHODS: A total of 62 persons with 31 patients under HD therapy and 31 volunteers were included in the study. I participants, CIMT was measured and AIP were calculated.

RESULTS: AIP and CIMT were found significantly higher in the patient group than in the controls (p=0.0001, 0.0001; resp There was a significant correlation between AIP and increased CIMT in the patient group (p=0.0001). Among the lipid pa the strongest coorelation was found between CIMT and AIP.

Table1. Demographic and laboratory data of the study groups

Parameters	Control (n=31)	Patients (n=31)	p
Age (year)	40.1 7.2	49 16.2	0.061
SBP (mmHg)	121 10	128 18	0.038
DBP (mmHg)	79 8	80 12	0.474
TG (mg/dl)	115.7 71.7	186.7 79.5	0.0001
Total–chol (mg/dl)	191.1 41.5	169.4 37.8	0.055
HDL (mg/dl)	41.2 15.1	31.3 9.7	0.006
LDL (mg/dl)	122.7 33.8	84.7 26.7	0.0001
Ox–LDL (ng/dl)	270.4 247.2	538.1 377.9	0.002
AIP [log(TG/HDL)]	0.04 0.36	0.39 0.32	0.0001
TG/LDL	1.05 0.86	2.35 1.13	0.0001
Ox–LDL/LDL	2,49 2,6	7,37 6,3	0.0001
Hs–CRP (mg/L)	2.9 2.2	10.4 11.8	0.0001
Albumin (g/dl)	4.4 0.4	3.4 0.5	0.0001
iPTH (pg/dl)	60.4 24.2	408.5 358.8	0.0001
CIMT (mm)	0.45 0.11	0.57 0.13	0.0001

Table 2. Correlation of the parameters causing cardiovascular disease risk with A

Parameters	AIP		CIMT
	r	p	r
Age	0.202	0.116	0.577
SBP	0.256	0.045	0.214
DBP	0.254	0.047	0.145
MAP	0.287	0.024	0.207
Creatinin	0.581	0.0001	0.523
CaxP	0.306	0.015	0.174
Albumin	-0.355	0.005	-0.412
Hs–CRP	0.279	0.028	0.287
iPTH	0.340	0.007	0.402
Hgb	-0.275	0.031	-0.232
TG	0.946	0.0001	0.406
HDL	-0.835	0.0001	-0.351
Ox–LDL	0.272	0.032	0.284
Ox–LDL/LDL	0.311	0.014	0.261
Total chol/HDL	0.824	0.0001	0.397
TG/LDL	0.851	0.0001	0.416
AIP[log(TG/HDL)]	-	-	0.430

CONCLUSIONS: AIP was found to show a correlation with a greater number of risk factors, both classical and CKD spec CIMT. These data suggest that AIP might be a method which can be used both in diagnosis of subclinical atheroscleros deceleration processes of its progression.