

Significance of cognitive-behavioral therapy in the treatment of obesity

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Introduction and objectives

Dietary therapy (DT),programmed physical activity (PPA) and cognitive-behavioral therapy(CBT) are basic measures in the treatment of obesity. CBT applies methods which change eating habits of obese persons ,aiming to remove barriers relating DT and PPA. .The goal of this study is to try efficiency of applying CBT in the program for the reduction of body mass of obese persons ,versus the application of DT and PPA alone.

Material and Methods

The study included 60 obese persons ,who were divided into two groups(1 and 2), with 30 patients in each group,20-58 years of age ,with the body mass index (BMI) ≥ 30 kg /m² and hyperlipidemia (LDL cholesterol $\geq 4,2$ mmol/l serum). Patients have not been previously treated for obesity and were unhappy with their weight . Patients from both groups were on hypocalorie diet ,individually designed and had programmed physical activity every day. Patient in group 2 underwent group CBT , under the supervision of psychiatrist once a week with duration of 120 min ,but in group 1 no. Both groups also went to see an endocrinologist 6 times , on which occasions their body weight, ,parameters of lipid status serum and level of glucose in serum were measured.

Results

Red. br. No	Parametar Parameter	Grupa Group	n	s	Me(RANG)	Min	Max
1	Starost (Age)	B	29	46,2	9,9	20	58
		A	25	41,4	9,75	20	58
2	Pol(Gender)	B	29	Muški 16 (55,2%)(Male)		Žene 13 (44,8%)(Female)	
		A	25	Muški 13 (52,0%)		Žene 12 (48,0%)	
3	Visina(Height)	B	29	174	9,23	176	190
		A	25	171	7,52	170	185
4	Tjelesna masa (Body weight)	B	29	106,1	18,1	106	150
		A	25	102	10,99	102	120
5	Indeks tjelesne mase(BMI)	B	29	34,8	4,03	34	44
		A	25	35	2,67	35	41
6	Trajanje gojaznosti(Duration of obesity)	B	29	26	10,44	29	39
		A	25	21	8,24	21	36
7	Dijeta(Diet)	B	29	1317	122,68	1300	1500
		A	25	1256	71,18	1200	1500

Table 1 Demographic characteristics of the patients

Mjerenja (Measurements)	GRUPA B /GROUP B		GRUPA A /GROUP A	
	t	Zaključak (conclusion)	t	Zaključak (conclusion)
Pocetak : 4 nedjelje (start: 4 weeks)	8,85	p < 0.05	9,735	p < 0.05
Pocetak : 12 nedjelja	14,545	p < 0.05	8,179	p < 0.05
4 nedjelje : 12 nedjelja				
4 weeks: 12 weeks	9,912	p < 0.05	5,54	p < 0.05

Table 2 The test results mean values of body mass within the group

Vrijeme posmatranja(Observation time)	Oslabili (weight loss)		t	Zaključak (Conclusion)
	B	A		
4 nedjelje 4 weeks	29(100,0%)	22(88,0%)	1,92	p > 0.05
12 nedjelja 12 weeks	29(100,0%)	23(92,0%)	1,552	p > 0.05

Table 3 Schedule of patients in each group were weight loss during therapy group

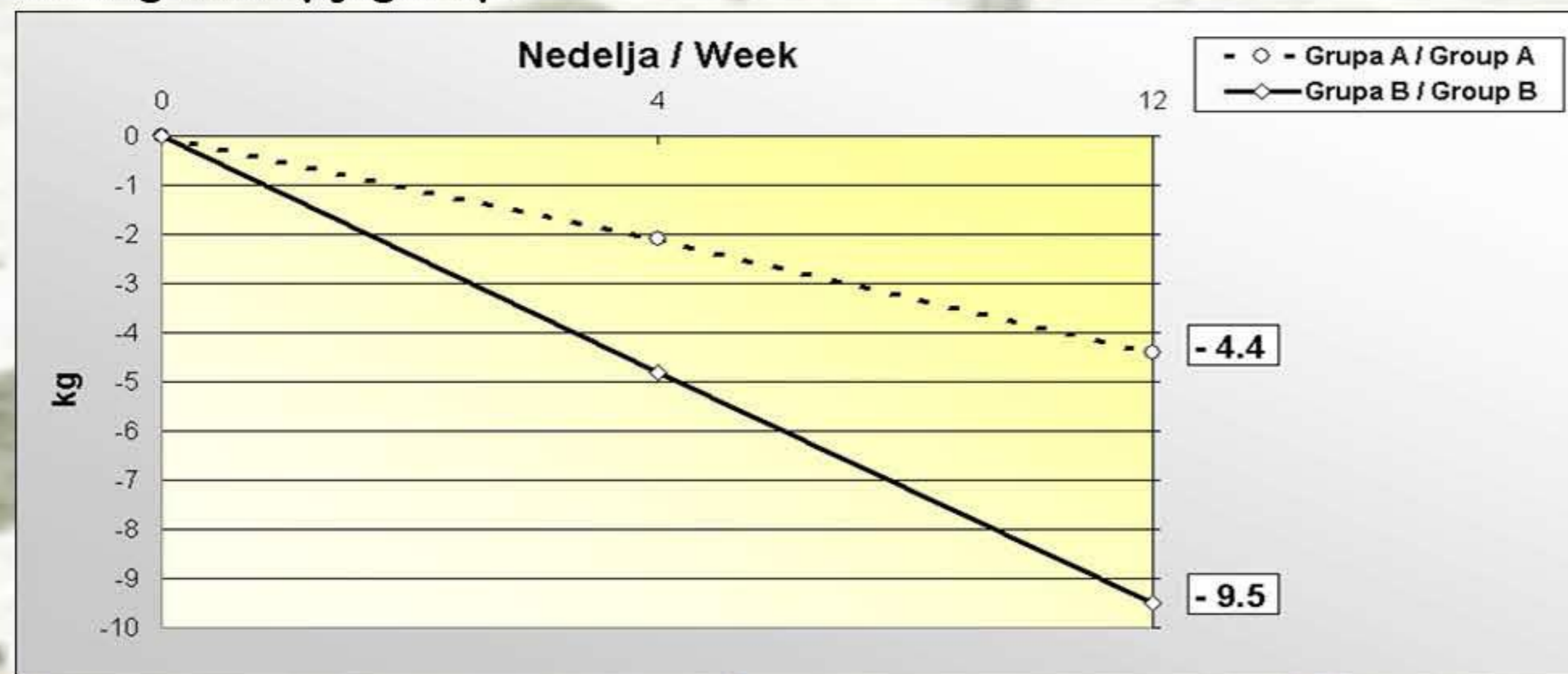


Figure 1. The curve value of weight loss during therapy

Results showed that in group 2, the medium value of BM reduction after 12 weeks of treatment was 9,5 kg (8,9 %), LDL cholesterol decreased for 34,5 %, HDL cholesterol increased for 2,7%, triglycerides decreased for 15,3 %,glucaemia decreased for 14,8 %, which is the significantly better metabolic profile ,then in group 1.

Conclusion

CBT affected the improvement of motivation and readiness of patients to stick to the dietary regimen and physical activity. In designing the program for the reduction of obesity it is necessary to include CBT ,which brings significantly better therapy outcomes ,then the application of DT and PPA alone

Literature

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Snizenje BMI-a (kg/m ²) BMI reduction	Broj pacijenata u grupi No of patients in group	
	B	A
< 4	18 (62.1%)	24 (96.0%)
>= 4	11 (37.9%)	1 (4.0%)

Table 4. BMI reduction in groups during 12 weeks of therapy

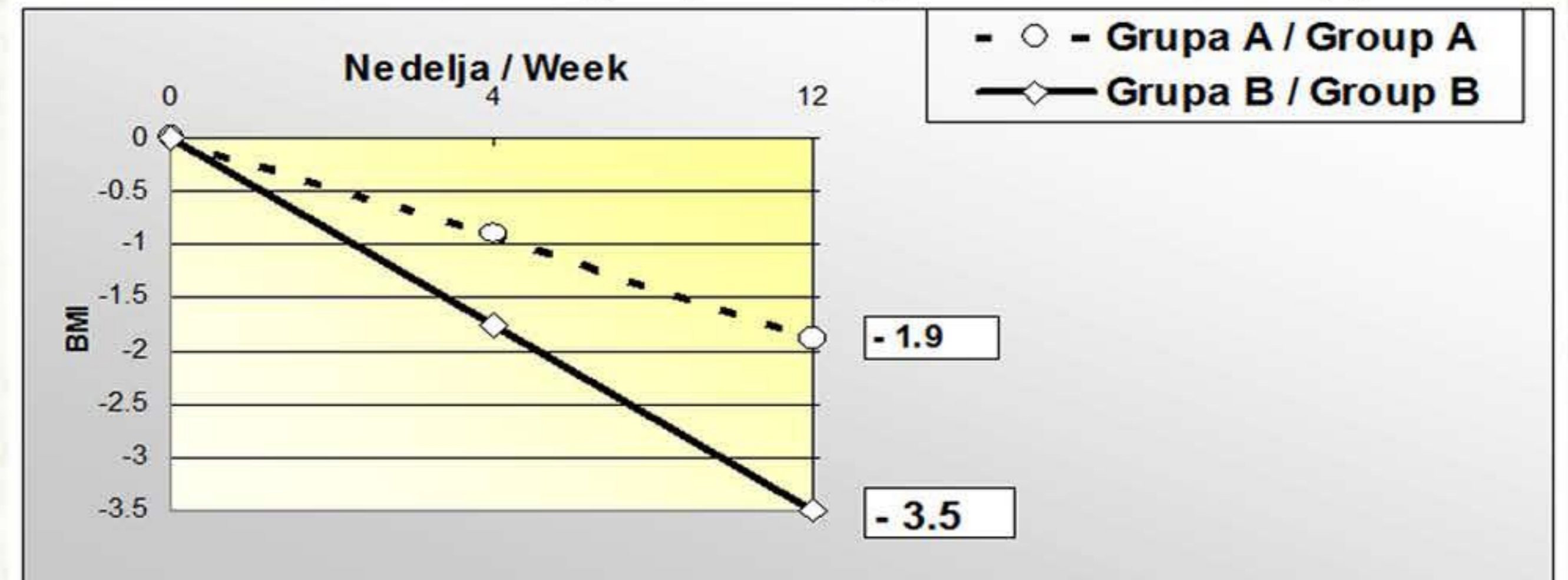


Figure 2 . Mean value of BMI during the therapy

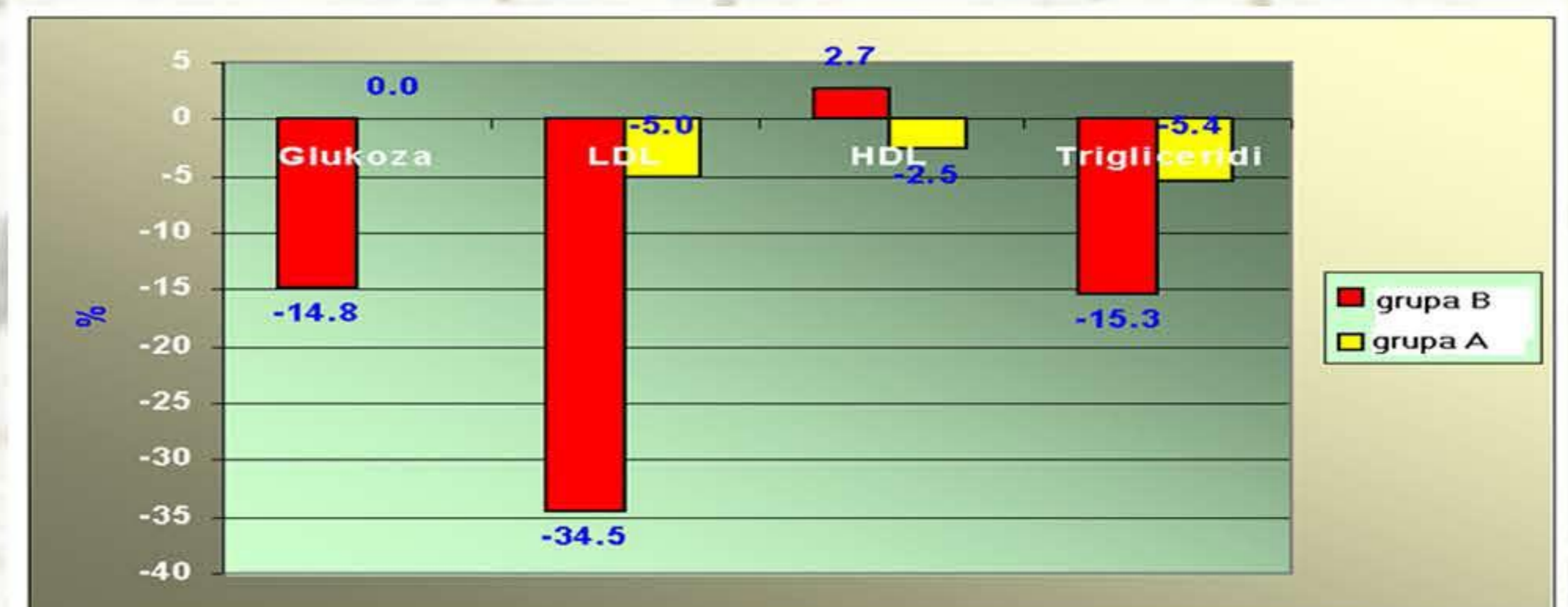


Figure 3 . Changes in mean value of glucose, LDL, HDL, triglyceride during the therapy

Sistolni pritisak /Systolic blood pressure	GRUPA B /GROUP B		GRUPA A /GROUP A	
	t	Zaključak Conclusion	t	Zaključak Conclusion
Pocetak : 4 nedjelje /Start: 4 Weeks	5,795	p < 0.05	1,572	p > 0.05
Pocetak : 12 nedjelja	6,208	p < 0.05	2,449	p < 0.05
Dijastolni pritisak Diastolic blood pressure				
Pocetak : 4 nedjelje	7,34	p < 0.05	0,272	p > 0.05
Pocetak : 12 nedjelja	6,927	p < 0.05	0,253	p > 0.05

Table 5. Comparison of mean values of systolic and diastolic blood pressure