

**Effects of a new nutraceutical formulation (berberine, red yeast rice and chitosan)
on non-HDL cholesterol levels in individuals with dyslipidemia: results from a
randomized, double blind, placebo-controlled study**

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Inflammatory markers	Placebo	Nutraceutical intervention	Treatment effect (GLM)
IL-10 (pg/ml)			
Baseline	14(10-26)	10(5-16)	p=0.64
4 weeks	17(9-23)	10(6-17)	
12 weeks	16(9-18)	10(6-17)	
IL-1β (pg/ml)			
Baseline	2.0 $\pm$ 1.2	2.1 $\pm$ 1.1	p=0.48
4 weeks	2.2 $\pm$ 1.0	2.5 $\pm$ 1.7	
12 weeks	1.8 $\pm$ 0.8	2.4 $\pm$ 1.5	
IL-6 (pg/ml)			
Baseline	1.9(1.8-2.7)	2.3(1.4-3.6)	p=0.78
4 weeks	2.2(1.7-2.8)	2.3(1.3-3.7)	
12 weeks	2.1(1.4-2.3)	2.7(1.5-3.9)	
TNF-α (pg/ml)			
Baseline	4.7 $\pm$ 1.4	5.6 $\pm$ 1.7	p=0.11
4 weeks	5.1 $\pm$ 1.5	6.1 $\pm$ 2.6	
12 weeks	4.9 $\pm$ 1.0	5.6 $\pm$ 1.2	
hsCRP (mg/l)			
Baseline	1.4(0.6-2.6)	1.0(0.6-1.9)	p=0.47
4 weeks	0.9(0.7-2.9)	0.9(0.5-1.5)	
12 weeks	0.7(0.6-1.0)	0.9(0.5-1.4)	
Hormones	Placebo	Nutraceutical intervention	Treatment effect (GLM)
Insulin (μU/ml)			
Baseline	7(4-11)	8(5-10)	p=0.59
4 weeks	9(7-11)	10(5-13)	
12 weeks	8(4-10)	8(5-13)	
Active GLP-1 (pg/ml)			
Baseline	0.6(0.40-3.2)	5.0(0.6-12.9)	p=0.17
4 weeks	0.4(0.4-9.3)	3.0(0.6-13.8)	
12 weeks	2.9(0.6-7.9)	3.0(0.6-12.3)	
Glucagon (pg/ml)			
Baseline	37(31-59)	58(40-67)	p=0.20
4 weeks	47(30-60)	58(35-71)	
12 weeks	43(40-46)	58(35-66)	
GIP (pg/ml)			
Baseline	78(46-95)	62(43-86)	p=0.70
4 weeks	52(41-79)	74(50-96)	
12 weeks	54(50-95)	81(51-103)	

Table S1. Effect of the treatments on inflammatory and hormone profile. Table S1 reports mean±standard deviation or median (interquartile range) and p values of treatment from general linear model (GLM) for repeated measures. (IL: interleukine; TNF: tumor necrosis factor; hsCRP: high sensitive C reactive protein; GLP-1: glucagon like peptide-1; GIP: Gastric inhibitory peptide)

Progenitor cells (n/10 ⁶ events)	Placebo	Nutraceutical intervention	Treatment effect (GLM)
KDR⁺/CD133⁺/CD34⁺			
<i>Baseline</i>	6(1-10)	4(3-7)	p=0.63
<i>12 weeks</i>	4(2-10)	4(1-7)	
KDR⁺/CD34⁺			
<i>Baseline</i>	23(10-46)	11(9-29)	p=0.28
<i>12 weeks</i>	10(6-20)	15(8-17)	
CD34			
<i>Baseline</i>	479(320-607)	507(344-622)	p=0.71
<i>12 weeks</i>	431(355-571)	511(334-622)	
CD133			
<i>Baseline</i>	343(257-456)	414(263-472)	p=0.66
<i>12 weeks</i>	405(322-542)	415(279-500)	

Table S2. Effect of the treatments on progenitor cell number. Table S2 reports median(interquartile range) and p values of treatment from general linear model (GLM) for repeated measures. (KDR: Kinase insert domain receptor)