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Serum vitamin E status in women users of low-dose oral contraceptives and in postmenopausal women taking hormone replacement therapy.

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Abstract: The objective of this study was to investigate the serum vitamin E status and value of vitamin E / TC and vitamin E / LDL-C in women who use low-dose oral contraceptives (OCs) containing 0.15 mg levonorgestrol and 0.03 mg ethinyl estradiol and also in postmenopausal women who take hormone replacement therapy (HRT). One hundred – thirty nine healthy non pregnant–non lactating women with a mean age of 32 years old (70 were OCs users and 69 were non-OCs users) and sixty healthy postmenopausal women, with a mean age of 51 years old (30 were under HRT and 30 were untreated) were studied using biochemical procedures (measurement of serum vitamin E and lipids levels), anthropometric measurements (weight and height) and interview with the subjects. No significant difference was found between either OCs and non-OCs users or HRT and non-HRT groups in terms of mean body mass index (BMI), and dietary intakes of vitamin E, total fat and total fiber. There were no significant differences between serum vitamin E levels and the mean value of vitamin E/TC in either OCs-users and non-OCs users or HRT and non-HRT groups. The mean value of vitamin E/LDL-C in HRT group was significantly higher than that of non-HRT group (7.13±3.48 vs 5.32±2.10, p<0.01). There was no significant difference between mean value of vitamin E/LDL-C in OCs and non-OCs groups. As a conclusion, using low-dose OCs has not resulted in altered vitamin E metabolism in OCs-Users compared to non-OCs Users. However, in postmenopausal women, taking HRT have had positive effect on serum vitamin E/LDL-C ratio, which is suitable indicator of vitamin E status.

Key words: Vitamin E, Oral Contraceptives, Hormone Replacement Therapy.

	LDL-C / mg	E / mg			
			(Oral Contraceptives;OCs)		
			(Hormone Replacement Therapy ;HRT)		
	(OCs)	OCs	(HRT)	HRT	() (
	HRT	HRT	OCs	OCs	(Body Mass Index;BMI)
	OCs	OCs	E	E	(p> /)
	HRT	LDL-C E	(p> /)	HRT	HRT
OCs	OCs	(/ ± /	/ ± /)	HRT	HRT
OCs	E	OCs	(p> /)		
		HRT		OCs	
			E	LDL-C E	
				E	:

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OCs

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E

E

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(LDL-C)

E

E

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/ kg

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/ cm

(kg)/ (m)

(BMI)

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Cecil

HPLC

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(LD)

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/ mg

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LDL-C

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