Effect of colchicine on serum lipid levels

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We and others have previously shown that patients with Familial Mediterranean fever (FMF) had low cholesterol levels when compared to healthy controls (1-2). The causes of this abnormality are not understood. It could be due to an inherent effect of FMF or due to a lipid lowering effect of colchicine (3-5), as the patients in these studies were all regular users. There are also studies showing efficacy of colchicine in preventing some cardiac complications other than preventing pericarditis (6). We conducted a 12-week prospective study to determine whether colchicine would affect serum lipid levels in patients with FMF. Behçet's syndrome (BS) patients were studied as diseased controls. We included in the study 24 patients with FMF (11 M, 13 F) and 16 (8 M, 8 F) patients with BS who were started to use colchicine 1.5 mg/d for the first time. All patients were registered at the outpatient clinic of Cerrahpasa Medical Faculty and naive to colchicine or any immunosuppressive treatment before the study entry. Those who had to use lipid lowering drugs, glucocorticoids, or any other immunosuppressives besides colchicine were not included in the study. Blood cholesterol and triglycerides levels were measured at study entry which is before colchine use and after 12 weeks of regular colchine use. Colchicine was stopped in one patient with FMF, after 4 weeks, because of liver toxicity and in another, after 6 weeks because of nausea. Two patients with FMF did not use colchicine regularly and another was lost to follow-up, therefore were withdrawn from the study . One BS patient who was started azathioprine because of active disease after 4 weeks of colchicine was also excluded from the study. Finally, there were 19 (8 M, 11 F) patients with FMF and 15 (7 M, 8 F) patients with BS who used colchicine regularly for 12 weeks. Patients with FMF (mean age: 33.8±14.1 years) were significantly younger than BS patients (mean age: 36.5±9.5) (p=0.001). As seen in the Table I, colchicine did not change the levels of cholesterol or triglycerides in patients with FMF. This was also true for BS patients. Three patients suffered from mild diarrhoea (2 with FMF, 1 with BS) during colchicine treatment; besides that, colchicine use was uneventful. In conclusion, this study provided no evidence that colchicine use affects serum lipid levels among patients with FMF and BS. The small number of the study groups could be a limitation.

Table I. Serum lipid levels before and after colchicine levels.

	Familial Mediterranean fever, n=19			Behçet's syndrome, n=15		
	Before colchicine	After colchicine	*p*	Before colchicine	After colchicine	*p*
Total cholesterol, mg/dL	169.0 ± 77.1	181.3 ± 48.3	0.58	181.4 ± 50.9	172.3 ± 44.4	0.53
Triglycerides, mg/dL	122.2 ± 82.3	128.2 ± 69.6	0.75	111.7 ± 62.9	106.5 ± 52.1	0.18
LDL cholesterol, mg/dL	120.4 ± 44.3	112.2 ± 39.9	0.35	115.1 ± 38.4	106.1 ± 39.7	0.85
HDL cholesterol, mg/dL	42.1 ± 13.4	47.1 ± 10.9	0.10	47.9 ± 9.2	48.3 ± 9.9	0.30

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