Research Article

Food supplementation with an olive (*Olea europaea* L.) leaf extract reduces blood pressure in borderline hypertensive monozygotic twins

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Article first published online: 27 AUG 2008

DOI: 10.1002/ptr.2455

Issue

Phytotherapy Research
Volume 22, Issue 9, pages 1239–1242, September 2008

Keywords:

Olea europaea L. leaf extract; EFLA®943; blood pressure; antihypertensive effect; LDL-cholesterol

Abstract

Hypertension is a harmful disease factor that develops unnoticed over time. The treatment of hypertension is aimed at an early diagnosis followed by adequate lifestyle changes rather than pharmacological treatment. The olive leaf extract EFLA®943, having antihypertensive actions in rats, was tested as a food supplement in an open study including 40 borderline hypertensive monozygotic twins. Twins of each pair were assigned to different groups receiving 500 or 1000 mg/day EFLA®943 for 8 weeks, or advice on a favourable lifestyle. Body weight, heart rate, blood pressure, glucose and lipids were measured fortnightly. Blood pressure changed significantly within pairs, depending on the dose, with mean systolic differences of ≤6 mmHg (500 mg vs control) and ≤13 mmHg (1000 vs 500 mg), and diastolic differences of ≤5 mmHg. After 8 weeks, mean blood pressure remained unchanged from baseline in controls (systolic/diastolic: 133 ± 5/77 ± 6 vs 135 ±

11/80 ± 7 mmHg) and the low-dose group (136 ± 7/77 ± 7 vs 133 ± 10/76 ± 7), but had significantly decreased for the high dose group (137 ± 10/80 ± 10 vs 126 ± 9/76 ± 6). Cholesterol levels decreased for all treatments with significant dose-dependent within-pair differences for LDL-cholesterol. None of the other parameters showed significant changes or consistent trends. Concluding, the study confirmed the antihypertensive and cholesterol-lowering action of EFLA®943 in humans. Get PDF (87K)