

Oleaster oil positively modulates plasma lipids in humans

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Abstract :

The olive tree had been domesticated during the early Neolithic in the Near East, and more than 1000 different cultivars have been identified to date. However, examples of wild olive trees (*Olea europaea oleaster*) can still be found in the Mediterranean basin. Evidence of oleaster use for oil production can be found in historical and sacred texts, such as the Odyssey, the Holy Koran, and the Holy Bible. While the nutritional and healthful properties of olive oil are actively being explored, there are no data on the human actions of oleaster oil. Therefore, we investigated the effect of prolonged, i.e., 1 month, consumption of oleaster oil on the lipid profile of a 40 healthy Algerian subjects (aged 27.9 ± 3.85 years), as compared to nonconsumers from the same area. Plasma urea, creatinine, and uric acid concentrations and glycemia did not significantly differ, at the end of the study, between controls and oleaster-oil-supplemented subjects. Conversely, we recorded significant decreases of plasma triglyceride concentration (-24.8%; $p < 0.05$), total cholesterol (-12.13%; $p < 0.05$), and low-density lipoprotein-cholesterol (LDL-C) (-24.39%; $p < 0.05$) in oleaster-oil-treated subjects. Concomitantly, high-density lipoprotein-cholesterol (HDL-C) concentrations were significantly increased (17.94%; $p < 0.05$) by oleaster oil administration. In conclusion, we show that oil obtained from feral olive trees, i.e., oleasters, improves the plasma lipid profile of healthy volunteers.

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