## Physicochemical and Biochemical Characterization of Olea europea Var. Oleaster Oil and Determination of Its Effects on Blood Parameters

Authors : Asma Gherib, Imen Merzougui, Cherifa Henchiri

**Abstract :** This present study has allowed to evaluate the physico chemical characteristics, fatty acid composition and the hypolipidemic effect of Oleaster oil Olea europea var. Oleaster, from the area of El Kala, "Eastern Algeria" on rats "Wistar albinos". The physico chemical characteristics: acidity (0,73%), peroxide value (14, 16 meqO2/kg oil) and iodine value (74,08 g iodine/100 g of oil) are consistent with international standards. The dosage of FA revealed a wealth of oil with UFA (76,7%), mainly composed of 65.43% of MUFA whose major fatty acid is oleic acid (63,57%). The experiment on rats receiving a diet rich in saturated fats and hydrogenated oils revealed that the consumption of Oleaster oil at the dose of 10 g and 20 g for 15 and 30 days improves plasma lipid profile by decreasing the rates of TC, TG, TL, and LDL-C with an increase in the rate of HDL-C serum. The importance of these effects depends on the dose and period of treatment.

Keywords : oleaster oil, fatty acid, Olea europea, oleic acid, lipid profile

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