

Physicochemical and Biochemical Characterization of an Oil of Pistacia Lentiscus Fruits and Its Effects on Blood Lipid Profile (10364 EJSR)

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Abstract : This study has allowed to confirm the physico chemical characteristics and fatty acid composition by GC of the oil of Pistacia lentiscus extracted by traditional method and evaluate its effect on some blood lipid parameters. The results showed that the main physico chemical characteristics of Pistacia lentiscus oil are: moisture (0.84 %), a relatively high iodine value (80,44) indicating that this oil has an important degree of unsaturation. The oil is mainly composed of unsaturated fatty acids (MUFA) where oleic acid dominate with 47,01 % of total fatty acids and PUFA's represented by linoleic acid (19,26 %). Concerning the biological survey, oil, at 10% and 20% doses of diet for 15 and 30 days of two periods of treatment, resulted in beneficial effects on the lipid profile of Wistar albinos rats previously fed with animal and vegetable fats. We observed decreases in total cholesterol, triglycerides (TGA), total lipids and LDL-C, and an increase in HDL-C "good cholesterol" probably related to the presence of a large amount of (MUFA) and (PUFA).

Keywords : Pistacia lentiscus, oil, lipid profile, monounsaturated fatty acids, polyunsaturated fatty acids

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