

COMPARATIVE STUDY OF THE HYPOLIPIDEMIC EFFECT INDUCED BY DIFFERENT MONOUNSATURATED AVOCADO OILS

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In Mexico, the ischemic heart diseases are the first cause of death among men and the second one among women. Recently, in the area of vegetable oils of clinical and nutritional importance, the monounsaturated avocado oil has gained a great importance because of its oleic acid content; which is similar to the olive oil. It is also important because of its carotenoids and phytosterols content. These molecules are associated with the cholesterol reduction. The consumption of monounsaturated and polyunsaturated fatty acids could have a beneficial effect as well as an important oxidative resistance of the LDL, decreasing the atherogenic risk at the same time. The goal of this study was to evaluate and compare the hypocholesterolemic effect of the extra virgin avocado oil obtained by a clean technology, developed by Dorantes and Ortiz, along with different types of commercial monounsaturated oils on an induced hypercholesterolemic murine model. The groups were composed of eight mice each, and fed *ad libitum* for a month with a normocholesterolemic diet and an enriched cholesterol diet supplemented with either refined Hass avocado oil or extravirgin avocado oil or extravirgin olive oil or oleic oil. At the end of the treatment the serum concentrations of total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerides were determined by using an analyzer (Selectra II, Wiener Lab). The results showed a positive tendency of HDL-cholesterol, and an increase of LDL and total cholesterol because of the high combination of fats and oil provided in diet. This suggests that an atherogenic effect could be generated when modulating the lipid intake.

