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Research Section

THE EFFECT OF AVOCADO OILS ON SOME LIVER CHARACTERISTICS IN GROWING RATS

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Abstract—The effects of various avocado oils on some liver characteristics were studied in growing rats. The rats were fed diets containing 10% (w/w) avocado oil for 4 wk. In comparison with rats fed refined oil obtained from cored fruit by centrifugal separation, rats fed unrefined avocado oil obtained by solvent extraction from the intact fruit, or refined avocado oil containing avocado-seed oil, showed significant growth inhibition, an increase in the amount of hepatic lipids (identified as steatosis by histopathological examination), and a decrease in levels of triglycerides in blood. Rats fed the refined oil containing unsaponifiable material prepared from unrefined oil from the intact fruit showed similar responses. Fatty livers were not induced by feeding rats unrefined avocado oil obtained from intact fruit by centrifugal separation, although a significant decrease in blood triglycerides was observed. There were no significant differences between groups in serum total protein, albumin or bilirubin content or in alanine aminotransferase activity. However, serum alkaline phosphatase activity was increased in rats fed the seed oil, the unrefined solvent-extracted oil from intact fruit, or the unsaponifiables, and aspartate aminotransferase activity was significantly increased in the group fed avocado-seed oil. These data suggest that consumption of avocado oil extracted from intact fruit may cause changes in liver metabolism.