

218

PID27

LOWER LEVELS OF POLYUNSATURATED FATTY ACIDS IN GOAT MEAT MAKE IT STABLER AGAINST LIPID PEROXIDATION ON STORAGE

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Negligible lipid peroxidation occurs in goat meat during its storage at -20°C for three weeks. The molecular basis of this low lipid peroxidation has been found to be lowest levels of polyunsaturated fatty acids (PUFAS) in goat meat as determined by the technique of gas liquid chromatography in comparison to other meats (pork liver and muscle, fish and chicken) PUFAS have also been reported to be cancer promoters. Due to low levels of PUFAS, goat meat may be safest for human consumption on a large scale. Efforts are on to find out whether negligible lipid peroxidation in goat meat could also be due to higher contents of flavonoids (free radical scavengers) as goat is a completely herbivorous animal. The contents of other lipids varied in different meats studied.

221

PID28

CHANGES IN SERUM AND LIVER CALCIUM, MAGNESIUM, POTASSIUM AND SODIUM LEVELS DURING DIMETHYLNITROSAMINE INDUCED HEPATIC FIBROSIS IN RATS

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The essential elements (minerals) are involved in the pathogenesis of hepatic fibrosis. In order to obtain more information about the role of the essential elements in the development of human hepatic fibrosis, the alteration of essential elements were studied in dimethylnitrosamine (DMN) induced hepatic fibrosis in adult male albino rats. The levels of calcium, magnesium, potassium and sodium were determined in serum and liver samples on the 7th, 14th and 21st days after administration of DMN by atomic absorption spectrophotometry. All major liver function tests were also carried out in the rat serum and the results were statistically correlated with altered mineral levels in the serum. A significant decrease was noticed in the serum levels of all minerals studied. No significant alteration was observed in calcium and magnesium levels in the liver. However, the potassium and sodium levels were remarkably reduced in the hepatic tissue. The results indicate that the exacerbation of hepatic fibrosis with ascites plays a major role in the alteration of essential elements which may further aggravate the disease.