

Effect of Low Fat Diet on Kidneys Function and Sex Hormone in Male and Female Rats

Manal K Abdel-Rahman

Nutrition and Food Science Department ,Faculty of Home Economics, 65 Elmatbaea El-Ahlia St., Boulak, of, P.O. 11611, Cairo Egypt manalrahman@yahoo.co.uk 00202-35601762-0183424463

ABSTRACT

The effect of a low level of dietary fat on kidney function and sex hormone was examined in rats at 4 wk of age were fed either a low fat or high fat diet (5 or 20 g/100 g diet) for 6 wk. In rats fed the high fat rather than the low fat diet, kidneys weight was slightly increased than low fat diet. In rats fed the high fat diet, serum urea was 23% decreased; similarly serum creatinine was decreased to 5.5% and 24% in males and females respectively than control. Serum testosterone and estrogen concentrations were determined. Serum testosterone concentrations were one to three times higher than control group. Serum testosterone concentrations were higher in male rats fed the high compared with the low fat diet. Serum estrogen concentrations were unaffected by dietary fat levels. Although it remains to be elucidated how dietary fat influences sex hormone concentrations, the current study demonstrates that low dietary fat intake affect on kidney function and sex hormone.

KEY WORDS: • *high dietary fat* • *rats* • *kidney* • *sex hormone*