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(G. Manoj)
The genesis of colorectal carcinoma is under intensive scrutiny in many different countries of the world. Epidemiological data increasingly suggest that dietary agents play a key role in the causation of this disease, whether too much fat, protein and alcohol are to blame, too little fiber and vegetables or just an excessive consumption of calories. About a decade back the incidence of a number of diverticular diseases was not high in this country. Oftate due to economic uplift and modernisation, people have tend to adapt a number of western dietary habits. These changes of dietary habits can result in every possibility of a number of western problems and diseases also to enter the Indian scene.

Dietary fibers have been observed to play an important role in colon cancer and also as no work has been carried out sofar in studying the effect of coconut fiber and blackgram fiber on the chemically induced colon carcinogenesis, we made an attempt to study the effect of these fibers from blackgram and coconut kernel on the 1,2- dimethylhydrazine induced colon carcinogenesis.

Details of the investigations carried out are as follows.

1. Effect of feeding fiber isolated from blackgram and coconut kernal as neutral detergent fiber on the levels of cholesterol, Phospholipid, excretion of fetal sterols and bileacids and changes in the ratio of cholesterol to phospholipid

2. Effect of coconut kernal fiber and blackgram fiber on the changes produced in the antioxidant status in the colon of rats treated with the carcinogen 1,2-Dimethyl hydrazine. The levels of lipid peroxides, antioxidant enzyme activities and glutathione were studied.

3. Effect of the fiber isolated from blackgram and coconut kernal on the metabolic activity of the microflora in the intestine and colon of rats fed a high fiber diet and treated with DMH.

4. Percentage of tumor incidence, histological changes and the morphological changes in the colon of the rats treated with the colon specific carcinogen: 1,2-Dimethyl hydrazine and fed a high fiber diet.

These aspects were discussed in this thesis.