

Original Paper

## Effect of dietary with or containing poly-unsaturated fatty acids on weight changes and macroscopic properties of colon in rabbit

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### Abstract

**Background and Objective:** Overweight and obesity are increasing in the last three decades indicates the strong influence of environmental factors. Fats are the most important sources of human food which is considered as one of the reason for obesity. Among the components of the diet, poly unsaturated fatty acids (PUFA) are resulting in obesity. This study was done to evaluate the effect of diets containing poly unsaturated fatty acid on body weight and colon macroscopic properties in rabbit.

**Methods:** In this experimental study, 24 female rabbits were allocated into three experimental groups including short, medium and long term and control groups (three subgroups). Animals in experimental groups were received diet containing corn oil for one month (short term), two months (medium term) and three months (long term). Animals at the end of the first, second and third months, were weighed and dissected and taken biopsy from colon. The macroscopic properties of the samples including shape and arrangement of Haustration were evaluated.

**Results:** Over weight was not in the long – term consumption of corn oil in comparison with controls, but Haustra organization in different parts of the colon were disappeared in experimental animals.

**Conclusion:** The diet containing poly unsaturated fatty acid causes macroscopic alteration in rabbit colon.

**Keywords:** Unsaturated fatty acids, Weight, Diet, Colon, Haustration, Rabbit

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