EFFECT OF EDIBLE OILS ON INTESTINAL MOTILITY AND BODY TEMPERATURE IN SWISS ALBINO MICE

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BACKGROUND: Indians believe that edible oils have various properties such ascool, hot and laxative. Traditional medicines also support the concept. Hence, we intend to study the effect of commercially available sunflower and palm oilon intestinal motility and body temperature in swiss albino mice.

METHODS: Male Swiss Albino mice were divided into five groups with six mice in each group. Group 1 served as control and received distilled water. Group 2 and 3 receivedsunflower oil 10 ml/kg and 15 ml/kg respectively. Group 4 and 5 received palm oil 10 ml/kg and 15 ml/kg respectively. After 12 hours of overnight fasting, 1.3 ml of charcoalmeal, followed by a single dose of water or oil were orally administered. The micewere kept in a cageand providedonly water. Rectal temperaturewas measured at baseline and one hour after oil administration. After 1 hour, under anaesthesia, the abdomen was cut open to observe the intestine. The distance travelled by the charcoal in the intestine was measured. Intestinal transit percentagewas calculated using the standard formula. Data wasanalysed by One way ANOVA with $p<0.05$ as significancelevel.

RESULTS: There was no significant difference in rectal temperature due to oil intake. Even though sunflower oil increased the intestinal transit percentage compared to control group, values were not statistically significant.

CONCLUSION: The concept of cool and hot described in traditional literature does not refer to body temperature. Sunflower oil has the ability to increase intestinal motility due to its laxative property. A study using multiple doses of edible oils may be required to have measurable effects.

Keywords: Edible Oils, Sunflower Oil, Palm Oil, Transit Percentage, Laxative.