

**THE EFFECT OF PROLONGED FEEDING OF CHILLIE POWDER
ON THE RAT ALIMENTARY TISSUES—A PRELIMINARY REPORT**

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Chillie (*Capsium sativum*) is a common ingredient in Sri Lankan foods. Several workers have shown that chillie causes ulceration of human gastric mucosa on prolonged exposure. It was also shown in Sri Lankan subjects, that chillie powder causes increased salivation. This study was designed to observe pathological changes in rat alimentary tissues on prolonged exposure to chillie powder in food.

Powdered rat pellets were mixed with chillie powder in a 50% concentration and replaced the regular feed of a group of healthy adult white-rats. Rats were sacrificed at weekly intervals. The pathological changes in alimentary tissues and the kidneys were studied histologically and compared with healthy controls on a diet of normal rat pellet powder.

SECTION A

From the 1st week of study, the stomach showed haemorrhagic spots. Small intestinal haemorrhages and evidence of increased mucus production were seen. As the experiment progressed, tongue showed increasing keratinisation, haemorrhages in the stomach increased and necrotic ulcers developed in gastric mucosa within 4 weeks. Small intestinal villous pattern altered, the villi becoming broad and distorted with infiltration of chronic inflammatory cells. Liver and kidneys showed increasing haemorrhages and necrotic areas. The colon was distended oedematous and showed lymphocytic infiltration.

This study shows that continuous prolonged consumption of chillie presents a picture of increasing haemorrhagic and chronic inflammatory changes in rat alimentary tissues and kidneys.