

**STUDY OF PANTOPRAZOLE ON  
GASTROINTESTINAL MUCOSA OF  
ALBINO RATS**

**Thesis For The Degree Of**

*Doctor of Medicine*

**Anatomy**

**2010**

**HIMALAYAN INSTITUTE OF  
MEDICAL SCIENCES  
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## SUMMARY AND CONCLUSION

Pantoprazole is commonly used antacid and first line drug for treatment of acid peptic diseases. This drug is used specially in clinical conditions where faster relief is required.

During present study pantoprazole was given to rats in different doses and significant histopathological changes were seen in mild and moderate dose groups. Hypertrophy of gastric glands, hyperplasia of enterochromaffin like cells, overgrowth of bacterial colonies, increase in length of villi, inflammatory changes, edema and hyperplasia of lymphatic follicles were observed throughout the gastrointestinal tract. The hypochlorhydria produced by use of drug and improper feed back mechanism to the enterochromaffin like cells may be the causes for such histopathological changes.

In case of severe dose group findings were just opposite to that seen in mild and moderate dose groups, instead of hypertrophy there was atrophy throughout the small and large intestine. The epithelium was thinned out in upper gastrointestinal tract. Hyperkeratosis and extreme hyperplasia of gastric glands was the main feature. These detrimental changes in the severe dose group may be due to the chronic inflammatory effect of the drug and partly may be due to direct toxic effect of the drug.

Thus we can conclude that mild and moderate doses can be advocated for treatment of acid peptic diseases, but high doses are to be given with strict monitoring and not for a longer duration. Though the environment of gastrointestinal mucosa of rats is very different as compared to that of human beings but still the mucosa can be affected by the drug in a similar manner.

More studies are required in human beings to see the effect throughout the gastrointestinal tract in order to delineate the harmful effect of using pantoprazole as an antacid for longer duration.

## BIBLIOGRAPHY