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The impact of rebamipide on functional topography of enzymes of the small intestine in rats in the norm

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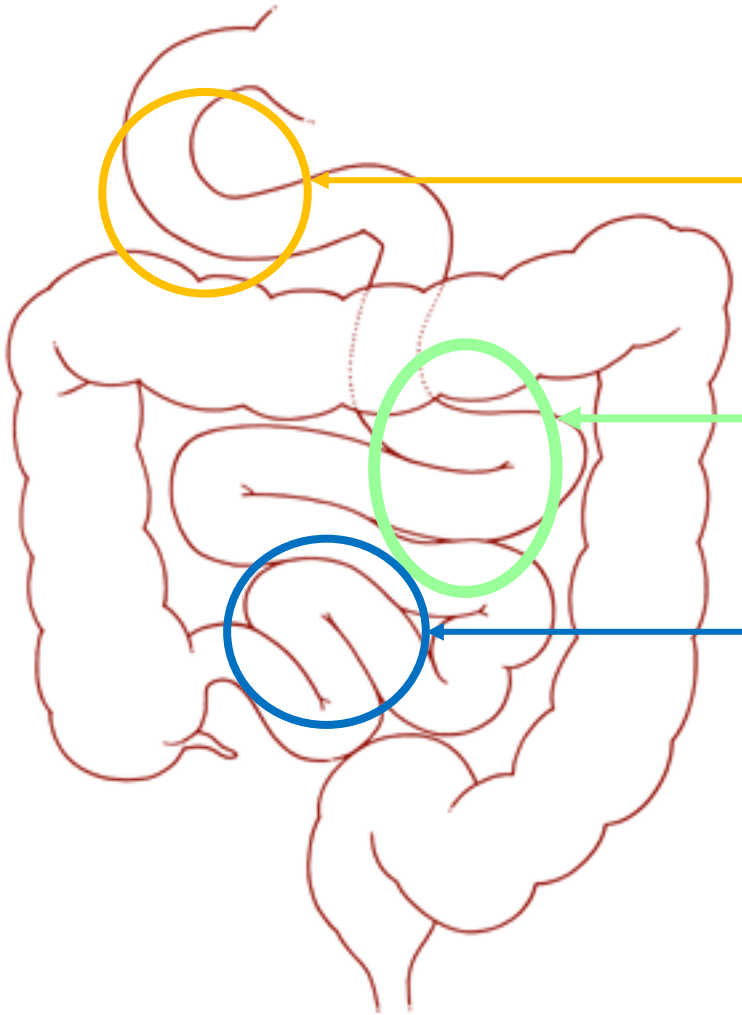
Summary Slide

- **Background:** The functional topography of small intestine enzymes is variable and depends on many factors, both in normal and pathological conditions.
- **Aim:** Research activity of maltase, glucoamylase, sucrase, lactase and alkaline phosphatase in the mucous membrane without and with the introduction of rebamipide.
- **Methods:** Studies were conducted on two groups of animals: intact (n=5), intragastric administration of rebamipid at a dose of 50 mg/kg per day for 14 days.

Results

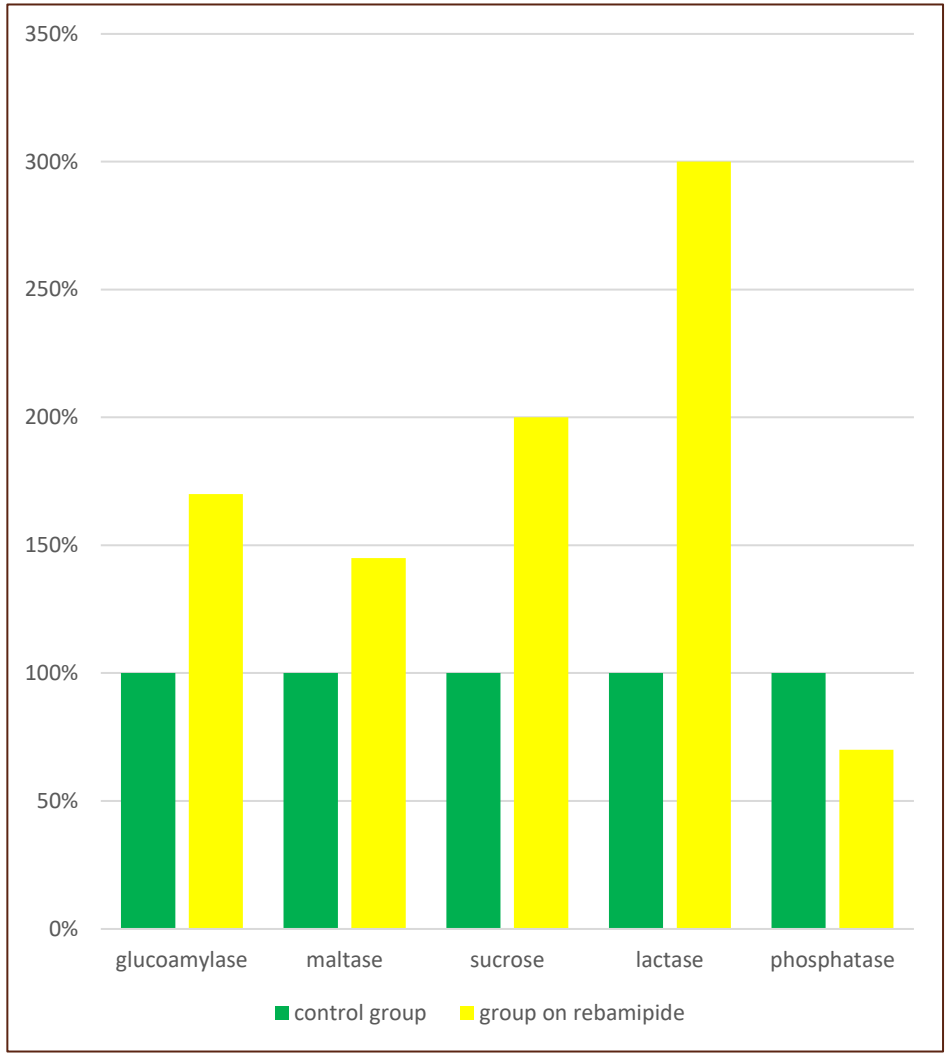


In the control group, the maximum activity of maltase, glucoamylase and alkaline phosphatase was observed in the second segment.

The sucrose activity in animals of the control group was observed in the duodenum.

The lactase activity in the control was maximum in the third small intestine segment.

Results



- The highest activity was observed in the second segment – maltase activity increased by 45% ($p<0.05$), glucoamylase activity – by 70% ($p<0.05$), alkaline phosphatase activity in the first three segments decreased by a maximum of 30%, while in the ileum the enzyme activity increased by 140% ($p<0.05$).
- The sucrose activity was most pronounced in the second segment, but against the background of a decrease in the enzyme activity in the duodenum.
- The decrease in sucrose activity in the caudal direction was the same as in the control group.
- The lactase activity was maximum in the second segment with an increase in activity compared to that in the control group by 200% ($p<0.05$).

Conclusion

- Intragastric administration of rebamipide at a dose of 50 mg/kg per day led to a change in the functional topography of the activity of enzymes in the small intestine.
- The maximum level of activity of all studied enzymes in animals under the action of rebamipide was observed in the second segment, and for lactase – in the third segment. In addition to the change in the enzyme topography, an increase in the activity of maltase, glucoamylase and lactase was observed, while the activity of alkaline phosphatase decreased in the first three segments and increased in the ileum.