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THE EFFECT OF THE ACUTE ADMINISTRATION OF ALCOHOLIC BEVERAGES ON THE POTENTIAL DIFFERENCE OF THE RAT GASTRIC MUCOSA

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Electrical potential difference (PD) between the inner and the outer sides of the gastric wall is maintained by the electrogenic pumps responsible for the ionic concentration gradients across the mucosa. The agents disrupting the mucosal electrolyte barrier evoke a decrease of the absolute PD value. In our experiments performed in anaesthetized rats we studied the influence of the administration of 1 ml of alcoholic beverages into the stomach on the PD. First we examined the effect of 5, 15, 40, 70 i 95° (vol. %) solution of ethanol. The 40, 70 i 95° concentrations produced the rapid and marked drop in the gastric PD, reaching 70% for the 95° solution (in some experiments even 90%). Decrease of the PD after administration of 40° and lower concentrations was temporary only. In the recent experiments the effect of the different kinds of alcoholic beverages e.g., beer, wine, cognac on the potential difference is examined.