

The Effect of Taking Heavy Metal on Gastrointestinal Peptides

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Abstract : In this study, the rate of release of gastrointestinal peptides heavy metal compounds applied to a certain extent (gastrin/CCK) on immunohistochemical aimed to determine the effect. This study was supported by TÜBİTAK. Subjects were randomly grouped into three. Group I; iron (Fe), Group II; zinc (Zn), Group III; control; gavage technique was applied to each group once a day throughout 30 days. At the end of the experiment, rats were decapitated and their stomach-intestine tissues removed, Peroxidase anti peroxidase method was applied following the routine histological follow-ups. According to the control group, in the stomach, had more positive cell density of gastrin in Fe groups, it was observed that group followed by Zn. It was found between the groups in the stomach and intestinal gastrin, gastrin-positive cell density decreases towards the intestines from the stomach. Although CCK differences in staining were observed in the control group, the intensity of staining intensity between the two groups in positive cells was determined to be more than the stomach. The group in the intestines, there is no change in terms of positivity CCK. Consequently, there is no significant effect on gastrointestinal peptides in Zn application. It has been identified Fe application has a significant effect on the releasing of CCK/gastrin peptides.

Keywords : alimentary canal, CCK, iron, gastrin, zinc

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