

SUMMARY

In this study, determination of the height and width of villi, the goblet cell count per unit length of villi and mitotic cell count in crypts of the duodenum, jejunum and ileum on several age chicken at post hatching period was aimed. For this purposes, 70 broiler chicken were used. The chicken were fed with *ad libitum* feed and water under conventional condition. On the 0, 1, 2, 3, 4, 6 and 8 week old chicken, tissue samples were collected from 10 chickens for each group. Transversal sections were stained by the Crosman's triple stain, haematoxiline- eosine (HXE) and periodic acid schiff (PAS) reaction. Villus height and width, goblet cell count and mitotic cell count were determined by means of a image analysis system (Leica Q Win Standard).

The height of villi in all small intestine were generally increased from 0 day to 6 week old chicken. Whereas the villus height were shortened on 8 week old chicken. The width of villi were increased generally in duodenum and jejunum. The width of villi in ileum were increased untill 3th weeks but villus width were decreased the following ages. The goblet cell count in all small intestine were generally increased with age. The mitotic cell count were decreased gradually from 0 day to 3th weeks and increased suddenly on 3th weeks and than decreased gradually following ages.