

THE MORPHOLOGICAL AND HISTOLOGICAL STUDY OF THE CAECUM IN BROILER CHICKEN

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ABSTRACT

Morphological and histological study were performed in the cecum of ten, six months broiler chicken. The present study was observed that the morphological study distinguished three region from cecum .The proximal ,middle ,and distal represented (23.65%),(42.28%),(34.06%) respectively of the total length of right caecum ,and (23.59%),(43.45%),(23.95%) respectively of the total length of left caecum. The total length of the right caecum were(13.15±0.21)while the total length of left caecum were(13.14±0.44),also was observed that caecal wall composed of four layers(mucosa , submucosa , muscularis and serosa) .The regions of caecum were proximal with developed villi and numerous folds, middle with small villi and numerous folds,while the distal with small villi and avoid of folds .In present study the lymphatic nodules were mostly found in proximal part, but they were less prominent at the distal and least in the middle part of the caecum .the wide and length of lymphatic nodules were more major in the distal part than in the middle and proximal part. .

INTRODUCTION

Chickens large intestine consist of paired cecum and a short straight rectum joined to ileum and cloaca .cecum are two ,right and left elongated blind sac, each consisting of three parts: proximal or base, middle or body and distal or apex (1) .The short proximal part has a narrow lumen and a relatively thick wall, the long middle part is wider with thinner wall, the short distal part is extend to appointed end .Caecum wall is thinner than other parts of intestine, contain lymphatic tissue mostly in the basal part forming caecal tonsil (2) .Both the body and the apex of ceca allow the residence of uric acid degrading bacteria (3) .it is hypothesis that cecal environment should be maintained by wall developed immune defense mechanism ,such as the organization of enormous lymphoid nodules throughout the mucus membrane ,therefore the lymphatic nodules in the caecum are considered in important site both for immune responses and medicinal therapies(4).cecum may serve as site for several function, especially digestion of small food particles, absorption of nutrient, production of immunoglobulin and antibodies, microbial action of beneficial and pathogenic organism, utilization and absorption of water and metabolism of uric acid into amino acid(5). According to these significant ,the present study aimed to anatomical and histological study of caecum.

MATERIALS AND METHODS

A total of 10 broiler chickens aged six months were used in this study. The specimens were isolated after cervical exsanguinations under anesthesia by inhalation of diethyl ether. Twenty caecum(10L,10R) were isolated from ten animals at the