

# Morphometric Characteristics of the Large Intestine With Age

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**Relevance:** Currently, a number of scientific studies are being conducted in the world to assess the morphofunctional features of the lymphoid structures of the colon and the effectiveness of using a biostimulator in radiation diseases. In this regard, it is reasonable to study the morphometric parameters of the rat colon wall under the influence of a biostimulator on the background of radiation sickness, with chronic radiation exposure in normal conditions and at different age periods; changes in the micrograph of lymphoid formations of the rat colon under the influence of a biostimulator in normal conditions and with chronic radiation exposure. The specificity of lymphoid tissue in various parts of the colon wall under the influence of a biostimulator in normal conditions and in chronic radiation sickness in dynamics is evaluated, and the most optimal period of application of the ASD-2 fraction biostimulator in rats with the development of chronic radiation exposure to the state of lymphoid formations of the colon is selected.

**Introduction:** A comprehensive study of the morphology of systems and organs of a living organism will allow for a more detailed and in-depth understanding of the processes occurring in the body, and therefore create a basis for developing systems for full-fledged balanced feeding, keeping of animals and birds, which will ensure maximum productivity. Morphology using complex anatomical and morphometric techniques makes it possible to study and substantiate the species, age and breed differences identified in the structure of organs and body systems of each specific bird species. The key to the success of modern poultry farming, and even more so, its intensification is always based on knowledge of the biology of birds, its morphofunctional features, in particular, the organs of the digestive system

**Key words:** intestines, morphometry.

ANATOMICAL AND TOPOGRAPHIC INDICATORS OF THE LARGE INTESTINE IN GESE. The thoracoabdominal cavity was opened along a straight line, the abdominal cavity was opened, the large intestine was extracted, the cecum was removed, the length of the intestine was measured using thread and calipers with an accuracy of 1.0 mm, and the mass of the intestines was determined on the VLK-500 scale with an accuracy of 0.1 g. Results of the study. Analysis of the obtained data indicates that the maximum intensity coefficient of the growth of the mass of the large intestine as a whole and its components (paired blind, rectum and cloaca) was observed in geese of 15 days of age. By the 120-day age, there is a non-linear decrease in the weight growth coefficient of all components of the large intestine. It should be noted that at 15 and 30 days of age, the cecum has the highest intensity of weight gain, in comparison with the indicators of weight gain of the rectum and cloaca. By the age of 45 days, there was a decrease in the relative weight gain of the cecum, in relation to those of the rectum and cloaca. At the age of 60 females of geese, the growth of the studied parameters in all large intestines remains at the same level ( $P < 0.05$ ). From day 75 to day 120 of postembryonic ontogenesis of geese, a pattern of identical growth in the mass of the rectum and cloaca, which slightly exceeds that of the cecum, was observed (Fig. 1). Analyzing the data on the relative increase in the length of the large intestine and its components, it should be noted that they are maximal at the 15-day age of goslings. By the 45-day

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агерасту н, а sharp decrease in the relative increase incительнthe length of the colon is observedro  
отдел. It is noted that up to 30 days ofстэмбристembrional development of geese,the most intense  
increasein the lengthof the region is given by paired cecum. Indicators of relative increase in the length  
of the rectum have minimal indicators in thisperiod, however, at the age of 45 days, the relative  
increase in the mass of the rectum willprevail over others, in the compositionof the large intestine.  
Atthe age of 45 days, the indicators of increase in the lengthof the cecum have minimalvalues. At the  
age of 60 days, the data on the relatивесительнincrease in the length of the colonare the same. By the  
75-day age of geese, there is a slight decreasein the intensity of the increase in the length of therectum  
compared to the rectum and cloacum. In the subsequent ageperiods studied, the increase in the length  
of the colonaктически не изменяremains practically unchanged, reaching the minimum values at the  
age of 120 days.

### List of literature

1. AgarkovN.V. Macro - and micromorphology of the cecum and its bloodstream of North Caucasian sheep in postnatal ontogenesis. Author's abstract. 2018.
2. Azarov V. F. \*, I. N. Putalova\*\*, D. A. Skripkin. Morphological characteristics of the appendix orifice according to optical and virtual colonoscopy. Bulletin of New Medical Technologies-2012- Vol. XIX, No. 2. - p. 81.
3. Aleksandrova E.. V. Influence of biostimulants based on succinic acid on the biochemical and immune status 2012. pp. 71-75
4. Aminova G. G. Cytoarchitectonics of lymphoid tissue associated with the cecal wall in humans in adolescence. - 2002. - No. 4. - pp. 53-55.
5. Andreev D. N. The role of intestinal mucosal permeability disorders in the genesis of functional diseases of the gastrointestinal tract. Consilium Medicum. 2019; 21 (8). pp. 29-34.
6. Andriyashina T. V., Shilnikova N. V. Impact of radioactive contamination on the environment. Earth Sciences and related Environmental sciences–, pp.. 39-44.
7. Astashkin E. I., Kruglova M. P., Glezer M. G., Orekhova N. S., Novikova A. N., Grachev S. V. Comparative study of the effect of biogenic stimulants on the formation of oxygen radicals by blood phagocytes of patients with heart failure in vitro. Cardiovascular therapy and prevention, 2014; 13 (5). –, pp.. 58-62.

