

**DETERMINATION OF THE MORPHOMETRIC PARAMETERS OF THE TESTICULAR SURFACE OF ALBUM RATS IN AGE DYNAMICS**

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**Annotation:** This article presents the normative morphometric parameters of testicular excess in the age dynamics of purebred rats. The density of testicular tissue decreases with age, which may be related to tissue development and changes in its composition. Correlation between body weight and testicular weight: As rats age, both body weight and testicular weight increase, indicating some parallelism in their growth.

**Key words:** testicular hypertrophy, purebred rats, morphometry, index.

**Relevance of the study.** All over the world, special attention is being paid to research aimed at improving the early detection, treatment and prevention of diseases of the male reproductive system, including those caused by various physical factors. Currently, studies of the male population in different countries show an increase in spermatogenesis disorders [1-3], a decline in the average age of men with spermogram abnormalities and various reproductive diseases [4-6]. implementation of complex measures, including the formation of a healthy lifestyle, the system of medical standardization, the introduction of high-tech diagnostic methods and treatment by creating effective models of patronage and clinical examination.

**The purpose of the study:** to study the morphometry of the testis in purebred rats.

**Research materials.** An experimental study was conducted on the material obtained from the testicles of 35 new-born, 3, 6, 9, 12 months old male white rats.  $V = 0.123 \times n \times c^2$ , where:  $n, c$  is the length and thickness of the testicle, respectively, and 0.123 is a constant coefficient. The obtained testicles were fixed in Bouin's solution. After passing through high-concentration ethyl alcohol, they were embedded in hot paraffin, and then sections of testicular tissues with a standard thickness of 6-7  $\mu\text{m}$  were prepared, which were oriented sagittally or frontally. The samples were stained with hematoxylin and eosin according to van Gieson

**Research results.** In the process of studying the morphometry of the epididymis in non-white rats, the following data were obtained on newborn non-white rats: epididymal weight:  $45.1 \pm 1.46$  g, body length:  $8, 5 \pm 0.09$  cm, epididymis mass:  $0.21 \pm 0.011$  g, epididymis length:  $0.74 \pm 0.016$  cm, epididymis thickness:  $0.49 \pm 0.016$  cm, epididymis thickness: volume:  $0.13 \pm 0.009$   $\text{cm}^3$ , density of epididymal tissue:  $1.6$  g/ $\text{cm}^3$ .

**Summary:**

The following conclusions can be drawn from the study "Morphometry of the testis in non-white rats":

1. Weight and dimensions of the testicle:

- A small mass (0.21 g) and dimensions (length - 0.74 cm, thickness - 0.49 cm) of the testis are observed in newborn rats.

- As the rats get older, the mass, length and thickness of the epididymis increases. The highest values are achieved in 12-month-old rats: weight - 0.76 g, length - 1.3 cm, thickness - 0.9 cm.

2. Size and density of extra testicular tissue:

- The volume of the epididymis also increases with age, reaching the highest values in 12-month-old rats (0.64 cm<sup>3</sup>). may be related to change.

3. Correlation between body weight and testicular weight: As the rats age, both body weight and testicular weight increase, which shows some parallelism in their growth. These data may be useful for further research in the field of reproductive biology and medical aspects of the development and function of the testis.

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