

**I.V. Bobrysheva**

State institution “Lugansk State Medical University”

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## **FEATURES OF STRUCTURAL CHANGE OF THYROTROPIC CELLS OF PITUITARY GLAND AFTER EXPERIMENTAL IMMUNOSTIMULATION**

*The study was conducted as part of the research work “Features of the structure of immune and endocrine systems in immune stimulation and immune suppression” (state registration 0112U000096).*

**Summary.** The purpose of the presented research was to determine the dynamics of changes of structure of thyrotropic cells of pituitary gland of mature white laboratory rats after imunofan application in a dosage 0,7 mg/kg of body weight. Control animals received 0,9% soluble sodium chloride. The pituitary samples were taken on 1<sup>st</sup>, 7<sup>th</sup>, 15<sup>th</sup>, 30<sup>th</sup>, 60<sup>th</sup>, and 90<sup>th</sup> day after treatment. The conducted morphological and morphometric research with the high degree of validity showed that in reply to introduction of immunomodulator of imunofan the change of structure, cytological and caryometric parameters of thyrotropic cells of pituitary gland of mature white rats is observed, that testifies to their active reaction on exogenous influence. Dynamics of change of areas of nuclei, nuclear-cytoplasmic ratio, and also percent correlation of thyrotropic cells with the different diameter of their nuclei of pars distalis of pituitary gland testifies to appearance of signs of increase of functional activity of these cells of pituitary gland: the significant increase of indexes of experimental groups in relation to control data is established since 7th days after introduction of preparation.

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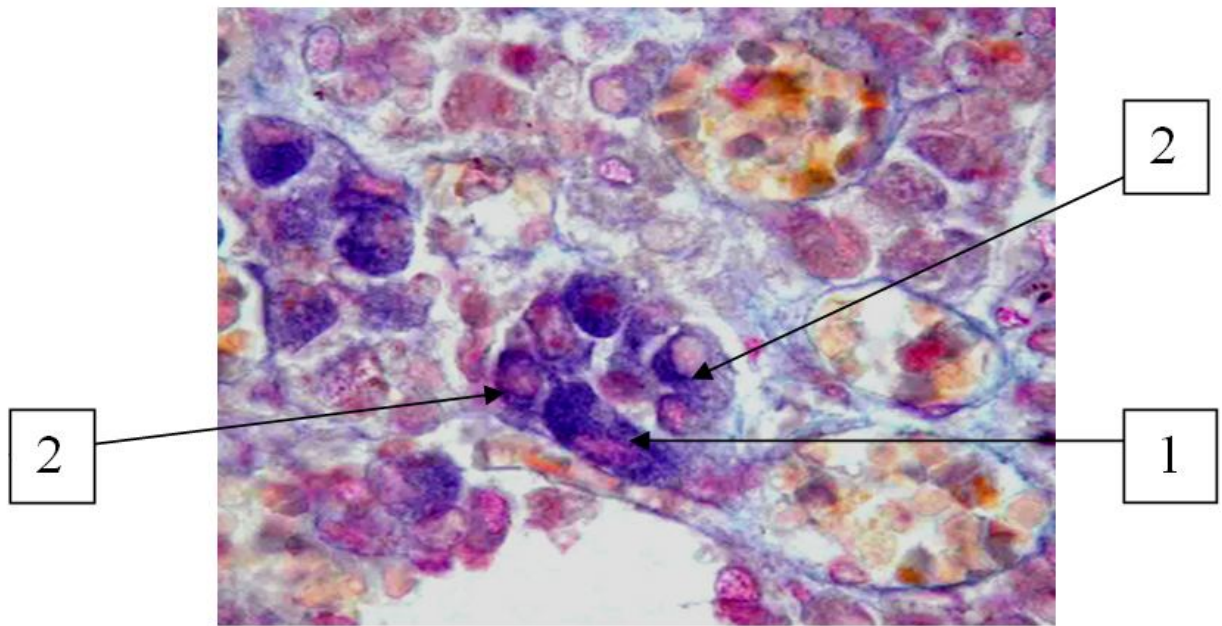


Fig. 1. Adenohypophysis of the adult male white rat of the control group. 1 – thyrotropic endocrinocyte, 2 – gonadotropic endocrinocytes. Mallory's stain.  $\times 162$ . Lens: Plan CN  $\times 60/0,25\infty/-/FN22$ .

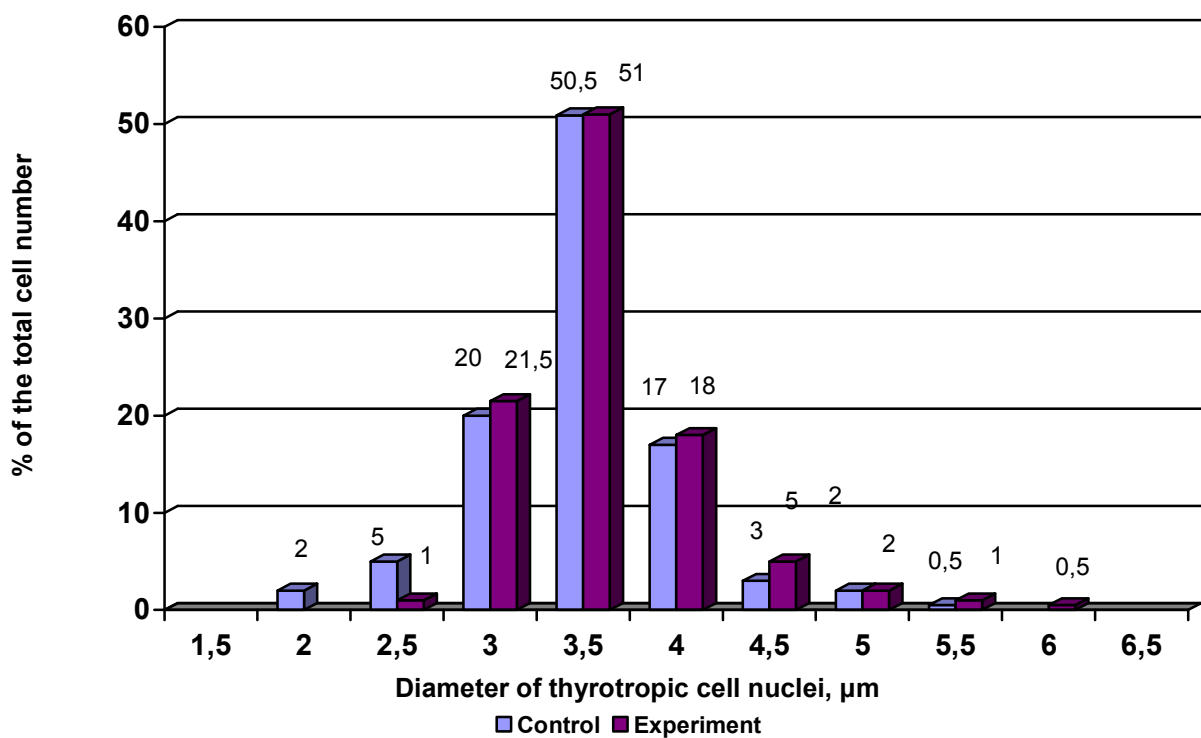


Fig. 2. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 1 day after Imunofan administration.

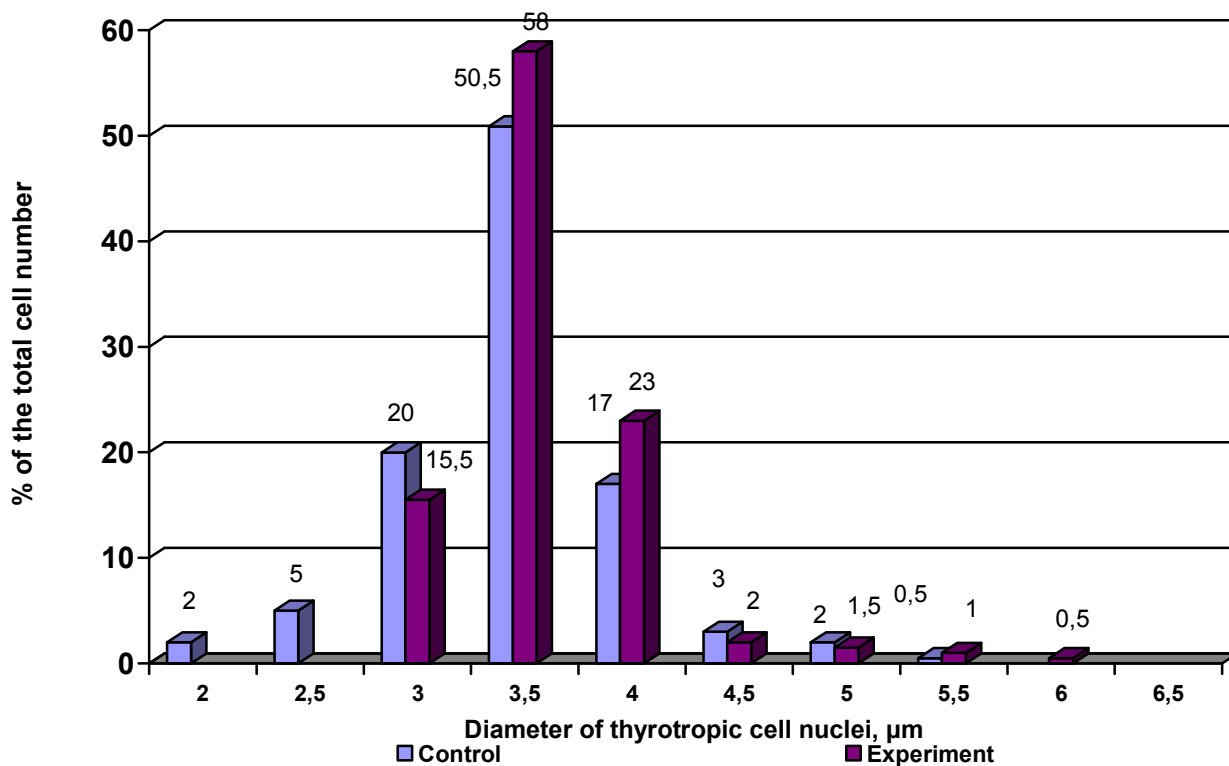


Fig. 3. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 7 days after Imunofan administration.

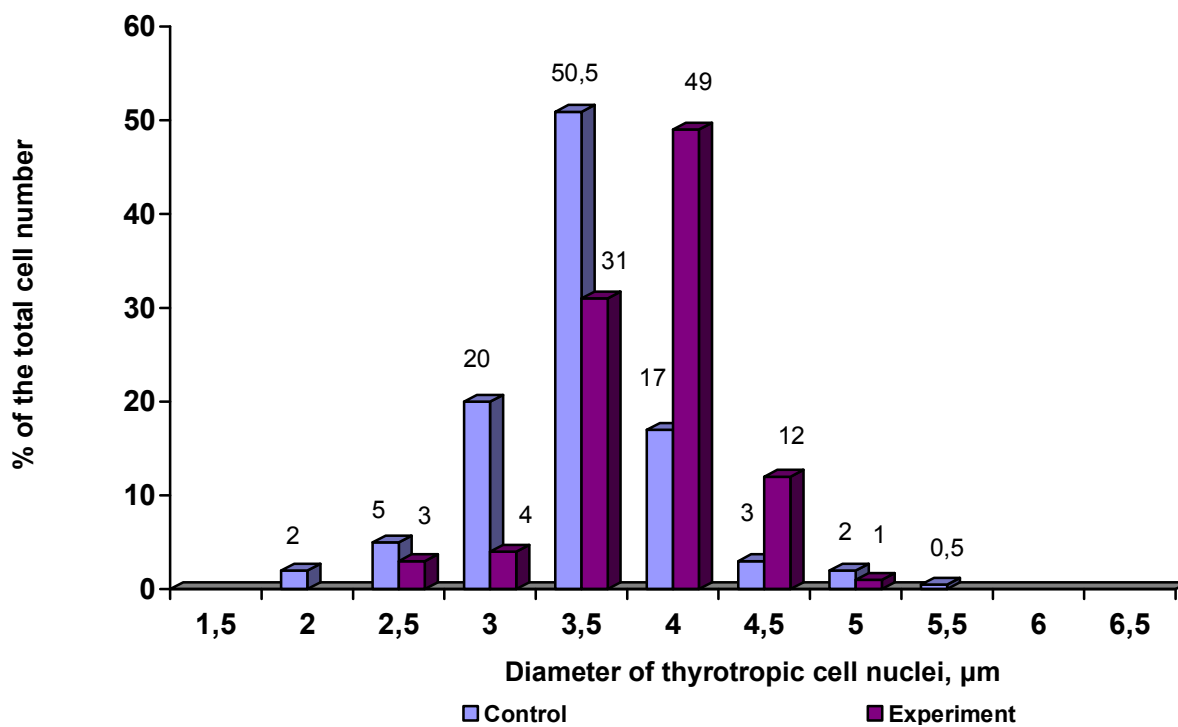


Fig. 4. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 15 days after Imunofan administration.

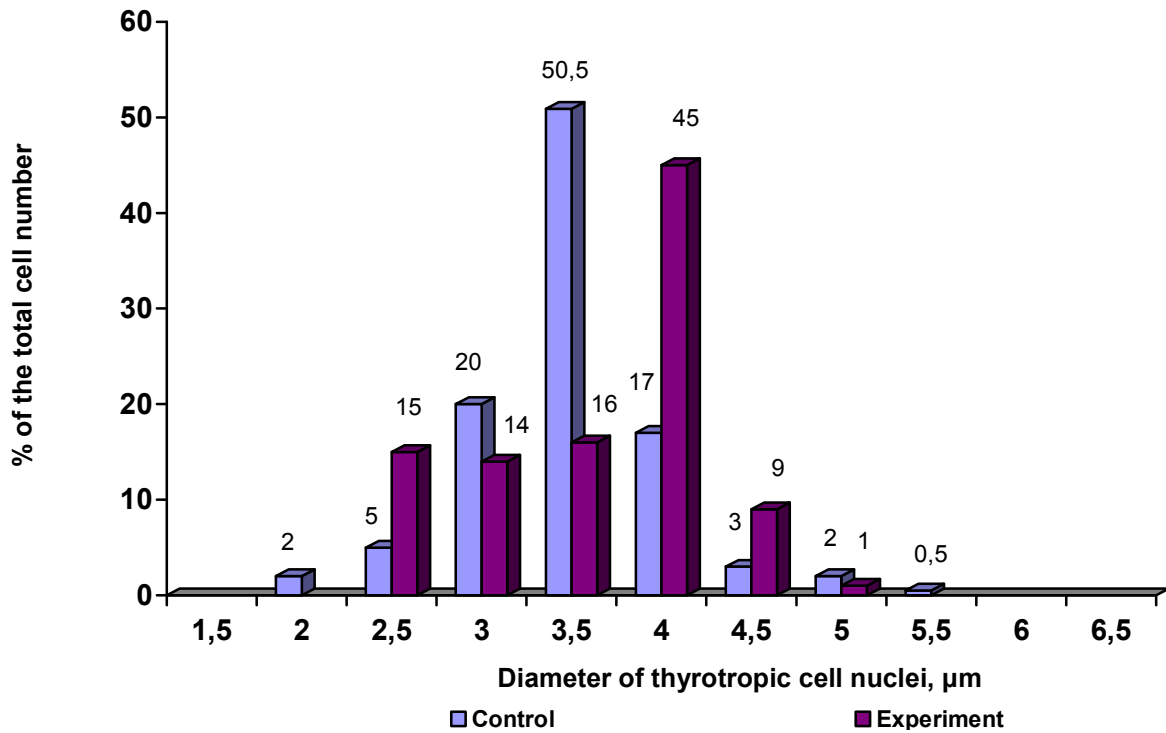


Fig. 5. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 30 days after Immunofan administration.

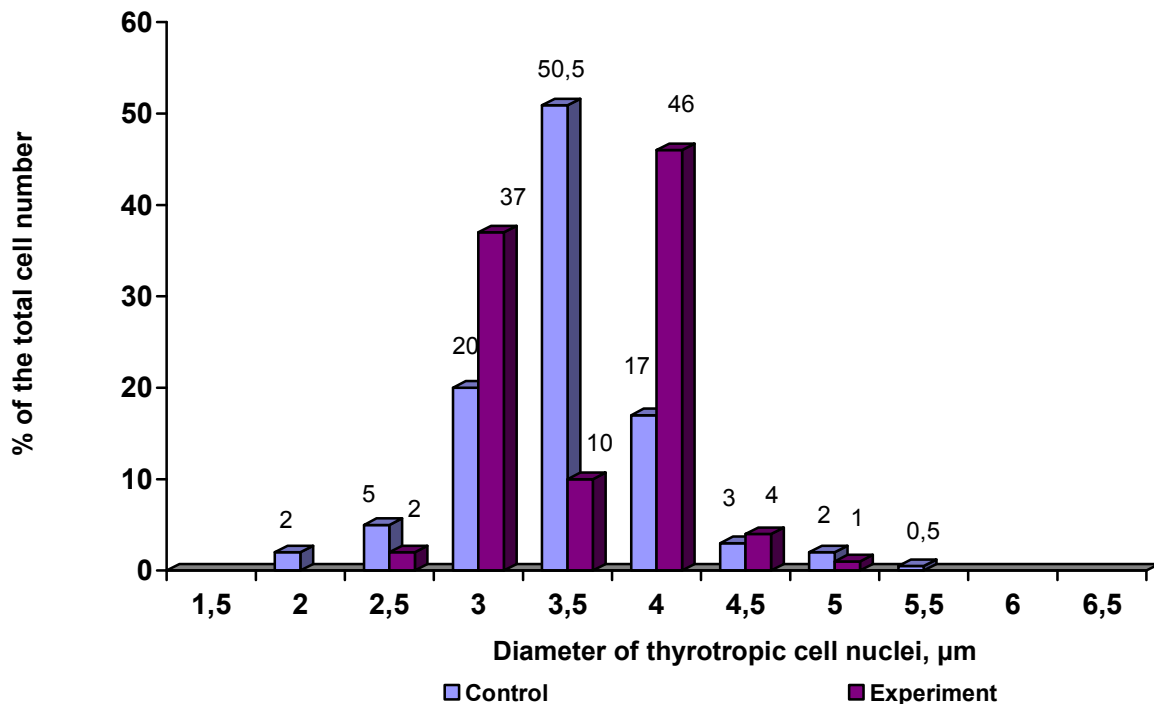


Fig. 6. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 60 days after Immunofan administration.

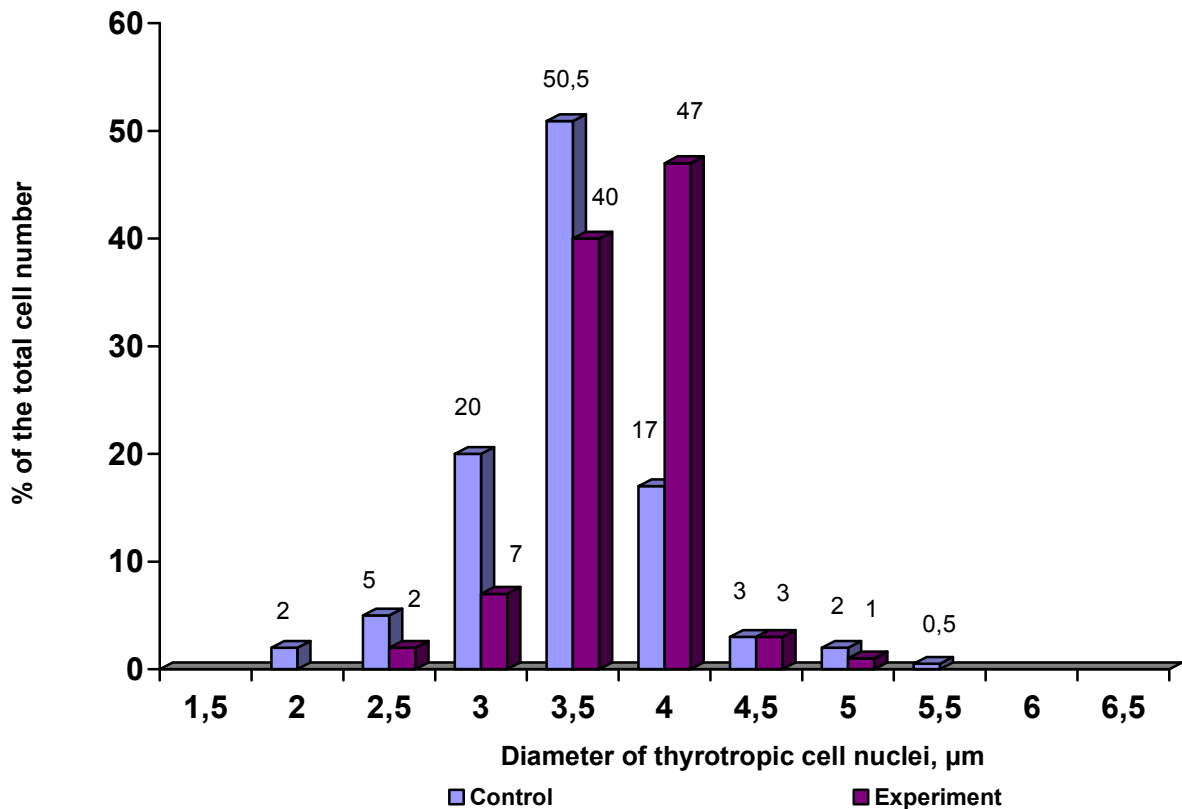


Fig. 7. Percentage of thyrotropic cells with nuclei of different diameter in the control animals and in the animals 90 days after Imunofan administration.

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