



# **ABSTRACT BOOK**



**KHARKIV, UKRAINE**  
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# BIOMEDICAL SCIENCES



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3) at visual and figurative thinking the joint venture alfa-3 subrange, in the other sites of the right hemisphere at teenage and youthful age decreases.

*Kalyan V., Sharma A.*

## **BLOOD GROUPS OF ABO AND RHESUS FACTOR SYSTEMS IN INDIAN STUDENTS**

Kharkiv National Medical University  
 (Department of Medical Biology)  
 Research advisor: PhD Kalyan V.V.  
 Kharkiv, Ukraine

Introduction. India is the second most populated country in the world with the world's third largest higher education system in terms of enrollment of students (26 mln) (Khare, 2014). It is also leading exporter of students to other countries including Ukraine. The number of Indian students studying in Ukraine doubled during academic year 2015/16 and continues to rise (MES of Ukraine, 2016). That is why study of blood groups in Indian students may be important for medical (blood transfusion) and scientific (population genetics) purposes.

The goal of the study was to assess blood group frequencies of ABO and rhesus factor (Rh) systems in Indian students.

Materials and Methods. The evaluation of blood group frequency has been done by an anonymous survey of first-year international students, which study in Kharkiv National Medical University. The study has been conducted on 168 students. All respondents are India citizens aged from 18 to 20 years. A questionnaire contained questions about age, sex, region of origin and blood groups of a respondent.

Results. The gender ratio of the respondents was 105 males (62.50%) to 63 females (37,50%). Geographically, 90 students (53.57%) were from Northern India, 63 students (37,50%) from Southern India, 6 (3.57%) from Western as well as from Eastern India, and 3 (1.79%) from Central India. The last three groups have been excluded from further analysis due to their small number.

Among representatives of Northern India, the most common blood group is group B (40.00%), followed by group O (28.89%). The frequency of group A is 18.89% and 12.22% of the individuals have group AB. A number of Rh-positive individuals (87.78%) is prevalent over Rh-negative (12.22%).

In the group of Southern India, blood groups B and O have almost same frequencies (31.74% and 30.15%, respectively), group A is equal to 28.58%, and group AB – the least frequency – 9.53%. Also 88.89% of the respondents are Rh-positive and 11.11% Rh-negative.

The ratio of Rh-positive and Rh-negative groups is almost equal for North and South. As for ABO system, the difference was found in frequencies of groups B and A. In Northern India, more people have group B, and the frequency of group A is almost 1.5 times less that on South. The predominance of group B in Northern region of India has been reported earlier (Nanu and Thapliyal, 1997; Chandra and Gupta, 2012). The higher percentage of Rh-negativity found in our study (12.22% vs 4.29%) could be explained by the small sample.

Conclusion. Our research can not be considered as completed and needs to be

continued. It may be useful in planning for blood transfusion if needed, especially related future growth of number of Indian students in Ukraine.

*Kharchenko E., Skliaruk D., Shtereb A.*

### **INDIVIDUAL VARIABILITY OF THYROID GLAND FOLLICLES DEPENDING ON GENDER AND AGE**

Kharkiv National Medical University  
(Department of Histology, Cytology and Embryology Department)  
Research advisor: Prof. Rykhlik S.  
Kharkiv, Ukraine

**Introduction.** Core values of democratic society are the high level of life activities and the human health. Over the years, issues of anatomical, morphological and physiological interrelations between the structure and the function of the endocrine system remain open and are solved as the technological development progresses further.

**Materials and methods.** In this study, the research was carried out on the autopsy material, which had been taken from 13 people of different age groups and gender. The material was received from patients who died from causes not related to endocrine disorders. In this work conventional morphological studies were used: sectional material was exposed to fixation by 10% formalin solution, with the further histological follow-through of glandular material with the subsequent hematoxylin-eosin staining. Van Gieson staining was also used to determine connective tissue structures.

**Results of research.** Follicles are specialized structures and they are the basis of thyroid gland structure. They are structural objects of round to ellipsoid shape and they are tightly adjacent to each other. Gel-like substance or colloid containing hormones is located inside them. Studies have shown that follicles are in connection with each other and are combined into groups. The aggregations of follicles constitute special communities which consist of blood vessels, network of nerve fibres and follicular epithelium. This community is an executive unit. Hormones production, their storage and excretion take place inside of it. The studies have shown that thyroid follicles generally require a large amount of nutrients, oxygen, that are taken from blood via blood flow that delivers the iodine highly required by this organ. The study found out that there is an age-relating variability in follicular diameter both in women and men. With age the diameter of the follicle is decreased and epithelial cells become more flatten in the follicles, which indicates the increasing hypofunction of the organ with age. There is a congestion of colloidal content in the enlarged follicles.

**Conclusions.** With age, connective tissue layers increase in amount and number of interfollicular cells grows up. This may be related to follicle's destruction. Sclerosis lesions are observed in some preparations.

*Knyhin M., Artsylenko K.*

### **MOMENTS AFFECTING THE PSYCHOLOGY OF SCHOOL GRADUATES**

Kharkiv National Medical University  
(Department of Hygiene and Ecology №1)