

# KLINIK LABORATOR DIAGNOSTIKADA INNOVATSION TEXNOLOGIYALARDAN FOYDALANISH, MUAMMOLAR VA YECHIMLAR xalqaro ilmiy-amaliy anjuman 18 aprel 2023 yil





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# $Klinik\ laborator\ diagnostikada\ innovatsion\ texnologiyalardan\ foydalanish,\ muammolar\ va\ yechimlar\underline{.\ 2023}$

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shaped hypochromic zone. In sickle cell anemia, the shape of erythrocytes does not change under normal conditions, only in the case of severe hypoxia, a hemolytic crisis occurs, and sickle erythrocytes - dacryocytes appear. In thalassemia, target-like, hypochromic erythrocytes - kodocytes appear.

In the results of laboratory blood tests, a sharp decrease in the number of erythrocytes and hemoglobin, unbound bilirubin in the blood serum, an increase in the amount of urobilin in the urine, and hemoglobinuria are revealed.

**Summary**. In patients with hemolytic anemia, a general blood analysis shows a decrease in the amount of erythrocytes and hemoglobin, an increase in the number of reticulocytes, changes in the shape of erythrocytes in congenital hemolytic anemia. In patients with hemolytic anemia, paying particular attention to changes in the composition of erythrocytes is one of the main factors for early diagnosis of this disease.

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# LABORATORY METHODS FOR THE STUDY OF URINE

\*Yusupov B.N., \*\*Abdiraimova A.N.
\*Tashkent Medical Academy, \*\*Tashkent state pedagogical university

General clinical and biochemical analyzes of urine more than a few have been used for centuries in medicine for diagnostic purposes. They give a wide range of possibilities for determining deviations in the body person. A general urinalysis is a laboratory examination of urine, carried out for diagnostic purposes and includes several stages: the study of physical properties, chemical properties, as well as microscopy of the urine sediment.

Preparation for a general urinalysis begins the day before the collection of biomaterial. Some foods, the amount of liquid you drink, taking medications and dietary supplements, intense physical activity can distort the results of the study. The day before urine collection, it is necessary to abandon foods that can affect the color of urine: for example, beets and blueberries give the urine a reddish tint, if you eat a lot of carrots or carotene supplements, the color of urine can change to orange. On the eve of urine collection, alcohol, coffee, dietary supplements and strong tea are not recommended. If possible, you should limit the intake of diuretic (diuretic) drugs. It is required to exclude serious physical exertion, as well as visiting baths, saunas. You should warn the doctor about the medications you are taking, as well as about conducting invasive examinations (for example, the the cystoscopy) on eve of

Method for collecting urine for general analysis. It is necessary to prepare a disposable sterile container for collecting urine in advance. Before collecting urine, hygienic treatment of the external genitalia should be carried out, while not using antibacterial and disinfectants. For general analysis, as a rule, collect the average portion of the morning urine. After collecting urine, tightly close the container with a screw cap. Special urinals have been developed for newborns and infants. Urine squeezed out of a diaper or diaper should not be used - the results will be unreliable, since the diaper is a kind of filter for the microscopic elements of urine that are counted during the study. When taking the test in the daytime, it is not recommended to drink large amounts of water, tea, coffee or diuretics in order to stimulate urination.

The turnaround time for a general urinalysis is usually 2-4 hours. Factors that can distort the result of the study: violation of the methodology for conducting hygiene procedures and urine collection techniques, drinking large or small amounts of water, using foods, drugs or dietary supplements that change the color of urine, blood admixture, high blood pressure, intense physical and psychoemotional stress on the eve of collection urine, visiting baths, saunas, hypothermia, invasive procedures on the urinary tract a week before the test.

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# HUJAYRA STRUKTUR KOMPONENTLARI.

<sup>1</sup>Yusupov B.N., <sup>2</sup>Abdiraimova A.N. <sup>1</sup>Toshkent tibbiyot akademiyasi, <sup>2</sup>Toshkent davlat pedagogika universiteti

Hujayra barcha tirik mavjudotlarning tuzilishi va funksiyasini oʻzida aks ettiruvchi elementdir. Hujayralar bir hujayrali organizmlar (bakteriyalar, protozoalar) yoki koʻp hujayrali organizmlar toʻqimalarining bir qismi sifatida mavjud.

Hujayralar shakli, hajmi va ichki tuzilishi bilan bir biridan farq qiladi. Hujayralarning shakli quyidagicha boʻlishi mumkin: sharsimon, oval, tuxumsimon, silindrsimon, shoxlanuvchi, egri-bugri, yulduzsimon, poligonal va b. Hujayra oʻlchami 0,01 mm dan (nerv hujayrasi) 0,2 mm gacha (tuxum hujayrasi) boʻladi. Biroq, hujayralar hayotiy faoliyati, metabolizm, qoʻzgʻalish, oʻsish, rivojlanish va koʻpayish qobiliyatining asosiy xususiyatlarida oʻxshashlikka ega.

O'rtacha hujayra hajmining taxminan 80% suv, 15% oqsil, 3% lipid, 1% uglevod, 1% nuklein kislotasi va minerallardan tashkil topgan.

Har xil hujayralar xayot davomiyligi turli xil. Masalan, neyronlar va mushak hujayralari 100 yil va undan koʻp, jigar hujayralari 480 kun, qizil qon hujayralari 120 kun, ichak hujayralari 5 kun yashaydi.

Barcha turdagi hujayralar uchta asosiy, bir-biriga bogʻliq boʻlgan komponentlardan iborat:

- 1. Sitoplazmik membrana hujayraning tashqi qobigʻi.
- 2. Organoidlar, maxsus hujayra kiritmalarini tutgan sitoplazma.
- 3. YAdro sitoplazmadan membrana bilan ajralib turadi va xromatin, yadrochani oʻz ichiga oladi.

Sitoplazmatik membrana yoki plazmalemma hujayrani tashqi muxitdan ajratuvchi hujayraning qobigʻidir. SHu bilan birga sitoplazmatik membrana ichki muhitni doimiyligini saqlab turuvchi tanlangan oʻtkazuvchanlikka ega, hamda atrof-muhit va qoʻshni hujayralar bilan modda almashinuv jarayonida ishtirok etadi. Membrana tashqi va ichki yuzasida joylashgan 2 qavatli lipid va oqsil qavatlaridan iborat. Sitoplazmik membranada turli xil retseptorlar mavjud.

Sitoplazma - sitoplazmatik membrana va yadro oʻrtasidagi hujayra ichki muhiti boʻlib, unda modda almashinuvi va doimiy ichki muhitni saqlash