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# BLOOD COUNT OF PATIENTS OF THE DIALYSIS WARD IN MITROVICA

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**Abstract**. Laboratory blood examination is one of the most important indicators of the state of the organism. When we are sick, this analysis reveals where the focus is, but even when there are no clear symptoms, the blood count and biochemical parameters can indicate a smoldering, as yet undetected problem. Disturbances in the blood count and biochemical parameters can be a reason to suspect various pathological conditions such as: anemia, vitamin deficiency, autoimmune diseases, bone marrow diseases, infections, inflammation, thalassemia (lack of hemoglobin and red blood cells), and the negative effect of using different medicines...

- Any deviation, jump or fall, from normal values does not always mean that the disease is present, just as values in the "normal" range do not always mean the absence of the disease.

A blood test is a test that gives us not only an insight into the general state of health, but also serves to confirm the diagnosis of a particular disease. For example, if the doctor suspects an infection, a blood test can confirm that diagnosis based on accelerated sedimentation, elevated CRP value, changes in the leukocyte formula. In this way, it is possible to monitor the patient's health condition, the effects of the applied therapy, because taking certain medications can be reflected in the blood count.

- Through a blood examination, we get information about the parameters related to the basic components of blood, such as red blood cells that carry oxygen, white blood cells that help fight infection, and then blood platelets that are important for blood clotting.

- We also check hemoglobin (the protein to which oxygen and carbon dioxide bind and is found in red blood cells), hematocrit (the proportion of cellular elements in the liquid part of the blood), and we can also gain indirect insight into the work of other organs such as the liver , kidneys, glands with internal secretion. Sometimes the results of the blood count need to be supplemented with a biochemical blood analysis. (Testa NG,Molineux G (ur). Haemopoiesis: A Practical approach. Oxford University Press, New York 1993). Biochemical analyzes involve testing numerous parameters whose values provide insight into the functioning of individual organs and the organism as a whole.

- The goal of every laboratory analysis is to obtain accurate and reliable findings that will show whether changes have occurred in physiological functions and processes. (ISBT Committee on Terminology for Red Cell Surface Antigens). When it comes to laboratory testing of blood, it includes two types of analysis: those aimed at examining the type, number, relationship and appearance of cellular elements of the blood (blood count, hematological parameters) and others, which check the biochemical composition of the blood and based on that establishes the work or condition of individual organs and tissues.
- The goal of this work is to determine the biochemical and hematological status of patients in Mitrovica. The data are retrospective from the medical documentation (protocol) in the period from March 7, 2021 to March 7, 2022. In the regional hospital "Dr. Sami Haxhibeqiri", in Mitrovica.
**Keywords**: Biochemical parameters, hemodialysis patients, regional hospital "Dr. Sami Haxhibeqiri" in Mitrovica.

## 1. INTRODUCTION:

### 1.1. Hemodialysis

Hemodialysis (speak for just dialysis) is a method of removing waste products such as potassium and urea, as well as ordinary water from the blood in case of kidney failure. Hemodialysis is one of three therapies to replace kidney function. The other two are kidney transplant and peritoneal dialysis. Of all therapies, hemodialysis is the most common form of treatment for patients with terminal kidney failure. Routine hemodialysis is usually performed in bedridden patients who come to hospitals or other facilities equipped for hemodialysis. Hemodialysis in clinics is performed by specialized nurses and technicians. (Bozidar Vrhovac & suradnici, 1997).Very rarely, hemodialysis is also performed at home. Most patients undergo dialysis 3 times a week, and the procedure lasts an average of 4 hours. A condition of acute and chronic kidney failure that, if left untreated, leads to death, the disease is as old as humanity itself. In Ancient Rome, and later in the Middle Ages, as therapies for uremia (the Greek word for urine poisoning, literally "urine in the blood"), warm baths, sweating therapies, bloodletting and enemas (enemas) were used. Today's therapy for kidney failure involves physical processes such as osmosis and diffusion that enable the transport of fluids and solutes. (Eaves CJ.Assays of hematopoietic progenitor cells,U: Williams WJ. Hematology, 5. Izd. McGraw Hill, New York 1995:L22) The first scientific description of such a procedure was given in the 1850s by the Scottish chemist Thomas Graham. At that time, osmosis and dialysis became popular methods for separating water from solutions through semipermeable (semipermeable) membranes. Far ahead of his time, Graham hinted at the potential use of such a procedure in medicine in his description. English doctors Hales and Warrick are considered to have laid the foundations of modern peritoneal dialysis in 1744. (Cekmen MB, Bakirdoven S, Sayan M, Yilmaz A. BK virus nephropathy developing at er renal transplantation and its treatment with

ciprol oxacin: a case report. Transplant Proc 2012; 44: 3044-15. Halim MA, Al-Otaibi T, El-Kholy O i sur.). Active management of post-renal transplantation BK virus nephropathy: preliminary report. Transplant Proc 2009; 41: 2850-2. They washed the abdominal cavity of a 50-year-old patient with ascites with a mixture of water and wine in a ratio of 50:50. The first historical description of dialysis as a medical technique was published in 1913. Abel, Rowntree, and Turner of the University of Baltimore "dialyzed" anesthetized animals by directing their blood out of the body through tubes with semipermeable membranes.

The first peritoneal dialysis on uremic patients was performed by the German doctor Georg Ganter in 1923 at the University of Wurtzburg. Between 1924 and 1938, medical teams from Germany and the USA performed regularly repeated or intermittent peritoneal dialysis, demonstrating how such a procedure could serve as a substitute for normal kidney function. (Hadžiselimović R., Pojskić N. (2005)). German physician Georg Hass performed the first hemodialysis on humans. Hass is believed to have dialyzed the first patients in the summer of 1924. The first successful hemodialysis was performed in 1945 by Dutch physician Willem Kolff using a rotating drum on a 67-year-old patient who was admitted to the hospital for acute kidney failure. This procedure enabled the patient to be discharged from the hospital with normal kidney function. After that success, the era of continuous development of better and more efficient dialyzers begins, and hemodialysis is established worldwide as the therapy of choice for acute and chronic kidney failure. (Boyd W. F. (1950). Peritoneal dialysis has also experienced enormous progress in the last 50 years or so, and today it is widely represented as a dialysis technique.

### 1.2. Access to blood

In hemodialysis, there are three methods used to access the blood

- Intravenous catheter
- Arteriovenous (AV) fistula
- Arteriovenous synthetic bypass

The type of method used depends on several factors such as the time of kidney failure and the state of the patient's vascular system.

#### 1.2.1. Intravenous catheter

An intravenous catheter is most often a temporary, and less often a permanent catheter (with a subcutaneous implanted pad). A temporary catheter is placed in case of lack of AV-fistula or AV-bypass or in case of impossibility of their puncture. It is inserted into the large vena cava through the jugular vein or into the femoral vein.

### 1.2.2. Arteriovenous fistula

Arteriovenous fistula represents the most preferred way of accessing the bloodstream for patients who are on regular hemodialysis, and it is achieved by surgically connecting an artery and a vein on the patient's forearm. After 4 to 6 weeks, the created fistula can be used for hemodialysis. That kind of approach with proper care can take years.

### 1.2.3. Arteriovenous synthetic bypass

An arteriovenous bypass or graft is an artificial insert that is surgically placed between an artery and a vein. It is used when the veins are too small to form a fistula. Arteriovenous bypass takes about 4 weeks to heal. With arteriovenous bypasses, the formation of clots and infections occurs more often than with fistulas.

## 1.3. Equipment

### 1.3.1. Hemodialysis machine

A dialyzer is a functional unit of a hemodialysis machine. Although a dialysis machine is quite a large device, the dialyzer itself is only one foot tall. The dialyzer has two compartments separated by a membrane. One compartment contains the dialysate while the other compartment contains the patient's blood. The dialysis machine performs three basic actions:
• pumps blood through the dialyzer and regulates the flow for safety;
• removes waste substances from the blood;
• monitors blood pressure and the amount of fluid removed from the body.
In case of any change, the device alerts the medical technicians taking care of the patient with a sound signal.

## 2. PROBLEM DEFINITION

The problem with people on dialysis is the need for a special diet and medication. As their appetite is weak and they lose protein during peritoneal dialysis, these patients generally need a relatively high-protein diet - about 1 g/kg of protein per ideal body weight per day. Those undergoing hemodialysis should limit sodium and potassium intake to 2 g per day. Food rich in phosphorus should also be limited. Daily fluid intake is limited only in people who have persistently low or reduced blood sodium levels. (Hadžiselimović R., Pojskić N. (2005, Sarajevo, ISBN 9958-9344-3-4.). Daily weighing is important, and weight gain between two hemodialysis treatments indicates excessive water intake. In humans, who are on peritoneal dialysis, the depletion of potassium (4 g per day) and sodium (3-4 g per day) is less severe. Taking multivitamins and iron is necessary to replace nutrients lost during dialysis. (Gabardi S, Waikar SS, Martin S i sur. Evaluation of l uoroquinolones for the prevention of BK viremia

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at er renal transplantation. Clin J Am Soc Nephrol 2010; 5: 1298-304.) Despite this, hemodialysis patients who also receive many blood transfusions often have increased iron values because blood contains a large amount of iron, therefore, they do not need to take iron supplements. (Hadžiselimović R. (2005): Bioantropologija – Biodiverzitet recentnog čovjeka. Institut za genetičko inženjerstvo i biotehnologiju (INGEB), Sarajevo, ISBN 9958-9344-2-6.). Hormones, e.g. testosterone and erythropoietin, can be given to stimulate the production of red blood cells. Phosphorus-binding substances, such as calcium carbonate or calcium acetate, are used to remove excess phosphate.

Low calcium or severe hyperparathyroid bone disease can be treated with calcitriol (a form of vitamin D) and calcium supplements. High blood pressure is common in people with kidney failure. It can be controlled in about 50% of these people simply by removing enough water during dialysis. The other half of patients should take blood pressure lowering drugs (antihypertensive). People on chronic hemodialysis are kept alive by proper treatment. (Daniels G, Flegel WA, Fletcher A, et al. International Society of Blood Transfusion Committee on Terminology for Red Cell Surface Antigens: Cape Town Report. Vox Sang 2007; 92: 250-3) Despite this, dialysis often causes stress because the treatments are repeated several times a week for several hours. People on dialysis can feel deprived in every aspect of their lives. The potential loss of independence is particularly difficult for them to bear. These people depend on the medical team. For dialysis patients, transportation to the dialysis center should be properly organized because they must have unhindered access to help. Dialysis sessions, often scheduled at the convenience of others, affect work or school schedules and leisure activities. It can be difficult to have a steady job. People on dialysis may need help from the community to cover the high costs of treatment, medication, special diet (diet) and transportation. (Poole J., Daniels G. (2007): Blood group antibodies and their significance in transfusion medicine. Transfus Med Rev 2007; 21: 58-71). Older people on dialysis may become more dependent on their adult children or unable to live on their own. Often, established family rules and responsibilities have to be changed and adapted to the patient in order to be able to perform routine dialysis, which creates stress, feelings of guilt and dissatisfaction. People undergoing dialysis face stressful losses and changes in body appearance and function. Children, whose growth may be impaired, may feel isolated and different from their peers. Young adults and adolescents who are searching for identity, independence, and body image may find the complications of dialysis insurmountable. As a result of these losses, many people on dialysis become depressed and anxious. (Daniels G. (2002): Human Blood Groups – 2nd Ed. Blackwell Science, Oxford, London). Despite this, most people opt for dialysis. How people on dialysis and their medical team deal with it affects not only their social adjustment but also their long-term survival. Mental and social problems are generally reduced if dialysis programs encourage people to be independent and regain their former interests. Psychological and social counseling related to depression, behavioral problems, and problems involving loss or reconciliation and adjustment are often needed by families as well as people undergoing dialysis. These services

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are provided by social workers, psychologists and psychiatrists. Many dialysis centers provide psychological and social support.

## 3. HYPOTHESIS

### 3.1. Research hypothesis

The laboratory data of the patients in the dialysis department at the "Dr. Sami Haxhibeqiri" regional hospital do not present any concern.

### 3.2. The null hypothesis

The laboratory data of the patients in the dialysis ward at the "Dr. Sami Haxhibeqiri" regional hospital are worrying.

## 4. AIM OF THE WORK

The aim of this work is to determine the biochemical and hematological status of patients in the city of Mitrovica. Data are retrospective from medical documentation (protocol) in the period from May 7, 2021 to August 8, 2021. In the regional hospital "Dr. Sami Haxhibeqiri", in Mitrovica.

## 5. METHOD OF WORK

### 5.1. Test Type:

Data are retrospective from medical documentation (protocol) in the period from May 7, 2021 to August 8, 2021. In the regional hospital "Dr. Sami Haxhibeqiri", in Mitrovica.

### 5.2. Tables and graphical representations

Table 1. Presentation of laboratory findings in the dialysis department, in the regional hospital
"Dr. Sami Haxhibeqiri" in Mitrovica, for the period May 7, 2021 to August 8, 2021

| Nr | Sex | Age | Er | Hb | Le | Hemat | Tromb | Gluc | Hole | Trigl | Urea | Kreat | Acurik | Fe | TP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | F | 1955 | 3.36 | 10.00 | 3.36 | 29.70 | 117.00 | 6.38 | 7.40 | 4.22 | 14.90 | 524 | 392 | 3.90 | 74.6 |
| 2. | F | 1952 | 3.43 | 11.00 | 2.70 | 32.10 | 68.00 | 7.90 | 5.90 | 2.28 | 27.30 | 630 | 417 | 9.70 | 71.6 |

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| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3. | F | 1968 | 2.70 | 8.50 | 2.98 | 25.10 | 116.00 | 11.00 | 6.90 | 2.37 | 22.20 | 658 | 457 | 3.80 | 72.0 |
| 4. | F | 1957 | 2.98 | 9.20 | 3.60 | 27.40 | 120.00 | 9.30 | 7.30 | 2.66 | 30.20 | 460 | 357 | 11.9 | 62.9 |
| 5. | F | 1959 | 3.60 | 10.70 | 3.39 | 31.30 | 99.00 | 9.30 | 6.35 | 2.33 | 29.70 | 854 | 450 | 7.60 | 73.0 |
| 6. | F | 1955 | 3.39 | 11.00 | 2.90 | 31.80 | 130.00 | 2.90 | 6.01 | 1.93 | 20.86 | 498 | 356 | 24.7 | 69.0 |
| 7. | F | 1948 | 2.90 | 9.40 | 3.43 | 28.20 | 108.00 | 7.43 | 7.60 | 2.69 | 25.03 | 433 | 372 | 15.8 | 71.0 |
| 8. | F | 1955 | 3.43 | 9.90 | 3.80 | 27.80 | 94.00 | 2.67 | 7.30 | 3.60 | 12.25 | 606 | 501 | 7.10 | 72.0 |
| 9. | F | 1959 | 2.97 | 10.00 | 2.93 | 31.60 | 117.00 | 7.74 | 6.20 | 1.97 | 18.70 | 312 | 447 | 5.70 | 68.0 |
| 10 | F | 1961 | 3.31 | 9.50 | 2.97 | 29.30 | 116.00 | 6.50 | 6.00 | 2.50 | 23.10 | 461 | 375 | 13.0 | 74.1 |
| 11 | F | 1955 | 3.61 | 8.90 | 3.92 | 27.50 | 98.00 | 6.35 | 6.70 | 2.44 | 30.90 | 587 | 441 | 7.04 | 69.2 |
| 12 | F | 1966 | 3.46 | 9.40 | 3.92 | 25.40 | 116.00 | 6.26 | 6.00 | 1.91 | 29.40 | 632 | 464 | 21.0 | 68.9 |
| 13 | F | 1962 | 3.26 | 10.60 | 3.75 | 27.00 | 129.00 | 2.66 | 6.80 | 3.21 | 20.80 | 431 | 377 | 8.91 | 72.0 |
| 14 | F | 1945 | 3.29 | 10.10 | 3.70 | 30.60 | 127.00 | 2.32 | 6.20 | 2.79 | 24.20 | 609 | 360 | 28.4 | 68.5 |
| 15 | F | 1968 | 2.97 | 10.90 | 3.31 | 30.20 | 126.00 | 9.97 | 6.90 | 2.32 | 21.40 | 658 | 469 | 27.6 | 66.5 |
| 16 | F | 1962 | 2.76 | 6.60 | 3.61 | 19.20 | 89.00 | 4.50 | 7.67 | 1.92 | 28.80 | 681 | 377 | 28.2 | 68.9 |
| 17 | F | 1945 | 3.08 | 9.60 | 3.64 | 28.20 | 126.00 | 9.70 | 5.97 | 2.29 | 28.30 | 368 | 429 | 8.71 | 72.2 |
| 18 | F | 1954 | 3.14 | 9.90 | 3.43 | 28.60 | 123.00 | 9.20 | 7.19 | 3.41 | 17.10 | 644 | 416 | 14.5 | 73.0 |
| 19 | F | 1966 | 3.02 | 7.40 | 3.26 | 28.40 | 124.00 | 7.70 | 6.39 | 4.27 | 28.70 | 381 | 381 | 10.6 | 71.2 |
| 20 | F | 1967 | 2.23 | 10.70 | 3.29 | 18.50 | 127.00 | 6.39 | 5.89 | 2.75 | 32.50 | 637 | 421 | 13.3 | 74.0 |
| 21 | F | 1963 | 2.82 | 9.50 | 3.83 | 26.60 | 133.00 | 7.67 | 7.00 | 2.10 | 24.18 | 552 | 383 | 21.7 | 77.9 |
| 22 | F | 1977 | 3.15 | 9.90 | 2.97 | 27.80 | 108.00 | 8.80 | 6.87 | 2.06 | 25.40 | 609 | 360 | 30.6 | 69.5 |
| 23 | F | 1962 | 3.09 | 9.90 | 2.76 | 29.10 | 126.00 | 2.20 | 6.96 | 2.58 | 14.90 | 628 | 469 | 6.30 | 66.8 |
| 24 | F | 1955 | 2.95 | 9.90 | 3.62 | 21.80 | 117.00 | 8.00 | 6.25 | 2.19 | 37.50 | 831 | 477 | 14.9 | 69.2 |
| 25 | F | 1967 | 3.00 | 9.10 | 3.08 | 21.90 | 95.00 | 7.80 | 6.10 | 2.39 | 11.90 | 301 | 414 | 15.6 | 39.4 |

| 26 | F | 1945 | 3.00 | 9.80 | 3.63 | 30.80 | 119.00 | 7.60 | 5.88 | 2.62 | 20.60 | 458 | 415 | 19.0 | 74.1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | F | 1955 | 3.21 | 9.90 | 3.14 | 31.30 | 109.00 | 6.70 | 5.81 | 2.61 | 23.00 | 622 | 364 | 22.7 | 72.2 |
| 28 | F | 1961 | 2.83 | 10.10 | 3.02 | 30.00 | 115.00 | 7.40 | 6.80 | 2.76 | 21.20 | 475 | 387 | 11.0 | 74.2 |
| 29 | F | 1967 | 3.20 | 7.40 | 3.55 | 29.40 | 93.00 | 11.00 | 8.30 | 2.14 | 25.40 | 756 | 424 | 16.1 | 70.6 |
| 30 | F | 1967 | 2.66 | 11.00 | 2.23 | 31.30 | 128.00 | 8.30 | 8.70 | 2.27 | 36.20 | 662 | 391 | 16.1 | 66.5 |
| 31 | F | 1962 | 3.29 | 7.60 | 2.82 | 20.90 | 105.00 | 6.30 | 7.10 | 2.00 | 30.30 | 584 | 426 | 24.8 | 77.7 |
| 32 | F | 1962 | 3.02 | 10.70 | 3.57 | 27.20 | 101.00 | 6.80 | 7.85 | 1.96 | 23.60 | 627 | 497 | 22.4 | 77.8 |
| 33 | M | 1967 | 2.93 | 9.50 | 3.15 | 26.50 | 115.00 | 2.80 | 7.50 | 1.88 | 18.70 | 453 | 390 | 8.8 | 74.2 |
| 34 | M | 1958 | 2.55 | 9.90 | 2.95 | 30.40 | 115.00 | 2.50 | 6.10 | 2.61 | 17.70 | 566 | 403 | 16.2 | 71.1 |
| 35 | M | 1971 | 3.12 | 10.60 | 3.00 | 24.30 | 109.00 | 3.74 | 6.40 | 1.91 | 27.70 | 386 | 375 | 13.2 | 81.1 |
| 36 | M | 1960 | 3.10 | 10.20 | 2.50 | 30.20 | 82.00 | 3.08 | 7.80 | 1.93 | 28.00 | 372 | 305 | 8.50 | 80.2 |
| 37 | M | 1964 | 3.03 | 10.40 | 3.12 | 29.50 | 115.00 | 7.60 | 7.30 | 2.33 | 28.60 | 668 | 397 | 11.7 | 81.3 |
| 38 | M | 1948 | 3.31 | 7.20 | 3.40 | 30.20 | 102.00 | 3.83 | 7.71 | 2.94 | 30.30 | 639 | 356 | 6.40 | 77.8 |
| 39 | M | 1949 | 2.67 | 9.30 | 3.45 | 30.90 | 121.00 | 3.00 | 8.10 | 2.63 | 34.30 | 685 | 448 | 15.5 | 77.9 |
| 40 | M | 1955 | 3.04 | 9.10 | 3.20 | 27.10 | 125.00 | 2.27 | 6.60 | 2.06 | 29.70 | 328 | 372 | 33.0 | 74.2 |
| 41 | M | 1961 | 3.34 | 9.30 | 3.08 | 26.00 | 94.00 | 3.90 | 7.05 | 1.90 | 24.40 | 954 | 349 | 31.4 | 68.5 |
| 42 | M | 1960 | 3.39 | 11.00 | 3.22 | 26.00 | 112.00 | 3.25 | 8.34 | 3.77 | 15.80 | 633 | 424 | 17.9 | 81.2 |
| 43 | M | 1952 | 3.39 | 7.70 | 3.15 | 19.00 | 131.00 | 3.23 | 7.49 | 2.12 | 25.40 | 455 | 449 | 13.6 | 66.2 |
| 44 | M | 1959 | 3.14 | 7.10 | 3.18 | 27.90 | 97.00 | 6.20 | 8.10 | 2.29 | 21.50 | 308 | 428 | 31.1 | 69.8 |
| 45 | M | 1947 | 3.56 | 7.60 | 3.40 | 30.10 | 115.00 | 5.20 | 6.80 | 1.40 | 31.20 | 454 | 388 | 11.0 | 71.5 |
| 46 | M | 1966 | 3.60 | 11.00 | 3.80 | 30.14 | 125.00 | 5.80 | 7.71 | 2.20 | 31.90 | 585 | 344 | 21.1 | 63.8 |
| 47 | M | 1964 | 3.14 | 10.20 | 3.72 | 34.00 | 94.00 | 12.40 | 3.27 | 2.40 | 28.50 | 540 | 355 | 22.0 | 81.4 |
| 48 | M | 1960 | 3.57 | 8.44 | 3.65 | 35.80 | 97.00 | 3.80 | 4.20 | 2.44 | 27.70 | 521 | 361 | 11.0 | 77.4 |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 49 | M | 1971 | 3.35 | 7.72 | 3.93 | 35.00 | 101.00 | 7.90 | 4.55 | 1.30 | 19.80 | 510 | 344 | 9.90 | 72.2 |
| 50 | M | 1948 | 3.30 | 7.20 | 3.70 | 34.60 | 103.00 | 16.50 | 8.22 | 2.50 | 17.70 | 499 | 411 | 11.0 | 74.4 |
| 51 | M | 1967 | 3.27 | 9.30 | 3.07 | 33.80 | 112.00 | 3.90 | 9.10 | 3.12 | 28.10 | 482 | 421 | 11.3 | 68.8 |
| 52 | M | 1985 | 2.06 | 10.2 | 3.00 | 33.32 | 122.00 | 10.60 | 9.19 | 2.80 | 26.60 | 490 | 444 | 12.0 | 65.8 |
| 53 | M | 1974 | 3.47 | 10.6 | 3.77 | 31.33 | 124.00 | 11.00 | 8.77 | 2.80 | 25.40 | 455 | 423 | 9.90 | 68.0 |
| 54 | M | 1970 | 2.33 | 8.90 | 2.91 | 30.80 | 99.00 | 5.40 | 4.80 | 1.80 | 22.00 | 521 | 424 | 11.2 | 71.4 |
| 55 | M | 1967 | 3.46 | 10.9 | 3.44 | 30.41 | 120.00 | 4.20 | 5.50 | 1.90 | 22.00 | 560 | 398 | 12.0 | 72.5 |
| 56 | M | 1955 | 3.74 | 8.00 | 3.80 | 31.00 | 111.00 | 6.90 | 6.10 | 2.10 | 21.10 | 540 | 448 | 19.8 | 74.4 |
| 57 | M | 1951 | 3.53 | 11.6 | 3.19 | 32.14 | 87.00 | 5.70 | 7.40 | 2.66 | 20.80 | 521 | 457 | 21.2 | 76.5 |
| 58 | M | 1959 | 2.68 | 6.40 | 4.19 | 28.20 | 123.00 | 5.90 | 6.10 | 2.40 | 19.80 | 510 | 442 | 22.3 | 77.0 |
| 59 | M | 1960 | 3.05 | 9.34 | 3.51 | 33.00 | 124.00 | 6.90 | 4.40 | 1.11 | 23.00 | 495 | 491 | 23.0 | 81.5 |
| 60 | M | 1946 | 3.27 | 9.45 | 3.54 | 21.30 | 88.00 | 8.00 | 5.10 | 1.80 | 31.20 | 444 | 501 | 31.0 | 67.9 |
| 61 | M | 1962 | 3.02 | 9.70 | 4.55 | 24.14 | 93.00 | 7.70 | 4.60 | 2.00 | 30.10 | 491 | 521 | 22.0 | 66.5 |
| 62 | M | 1967 | 3.11 | 10.2 | 3.62 | 25.19 | 121.00 | 8.50 | 3.80 | 1.77 | 28.90 | 480 | 532 | 17.0 | 65.2 |
| 63 | M | 1981 | 3.17 | 9.90 | 3.68 | 32.10 | 88.00 | 9.10 | 4.00 | 1.64 | 29.00 | 461 | 520 | 16.2 | 71.2 |
| 64 | M | 1990 | 2.76 | 8.90 | 3.52 | 28.80 | 94.00 | 8.20 | 4.60 | 2.07 | 30.20 | 477 | 512 | 15.5 | 73.2 |

**Table no. 2. The average of laboratory analyzes in the dialysis department for women and men, as well as the overall average**

| Nr | Sex | Age | Er | Hb | Le | Hemat | Tromb | Gluc | Hole | Trigl | Urea | Kreat | Ac | Fe | TP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Female | 62.50 | 3.09 | 9.62 | 3.19 | 27.68 | 113 | 7.00 | 6.75 | 2.58 | 24.39 | 567.8 | 367 | 14.89 | 70.26 |
| 2 | Male | 59.70 | 3.13 | 9.27 | 3.41 | 29.47 | 108 | 6.20 | 6.26 | 2.20 | 25.50 | 514.5 | 419.8 | 16.80 | 68.90 |

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| 3 | Aver age | 61. 10 | 3. 11 | 9. 44 | 3. 30 | 28.5 7 | 110. 5 | 6.6 0 | 6.5 0 | 2.3 9 | 24. 95 | 541 .1 | 393 .4 | 15. 84 | 68. 60 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## 6. STATISTICAL PROCESSING

The collected data were processed in the Microsoft Excel software office. The results are showed in tables.

### 6.1. Samples

Biochemical and hematological status of patients in Mitrovica.

### 6.2. Age groups

If we were to analyze the pathology of diseases that were recorded in the internist's clinic during this period, then it must be stated that it was used predominantly by an older population of citizens, with an average age of 61 years.

### 6.3. Sex

If we analyze the age of the patients, then we would have an average of 62.50 years for the female sex, and 59.70 years for the male sex. The total number of patients is 64 of which there are female patients (50.00%), while there are male patients (50.00%), which can be seen in table and graph

**Table no. 3. Number of patients by gender**

| Sex | Number | % |
|---|---:|---:|
| Female | 32 | 50,00 |
| Male | 32 | 50,00 |
| In total | 64 | 100,00 |

## 7. CONCLUSION

During the compilation of laboratory data, 32 female patients and 32 male patients were taken for testing. Patients became heavier from the younger age of 1990 to that of 1945. In the female gender, the average age was 62.50, while in the male gender, it was 59.50. According to the biochemical-hematological data in the dialysis ward, we find that the analyzes are not

worrying. Using the significance test, we find that the values are not significant. The null hypothesis that there were no significant differences between female and male age is supported. The values obtained, with the exception of Hematocrit, platelets, which is low in both sexes, while we have increased values of Triglycerides and Creatinine, all are within the limits.

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