NOVATEUR PUBLICATIONS
JournalNX- A Multidisciplinary Peer Reviewed Journal
ISSN No: 2581 - 4230
VOLUME 6, ISSUE 5, May -2020

DIABETIC REAM, ACTUALITY IN THE XXI CENTURY (REVIEW OF LITERATURE)

UMARKHODJAEVA GULNORAKHON,
Assistant of the Department of Pathological Physiology, Histology, Tashkent, Uzbekistan.

MIRKHOSHIMOV MIRSOBIT,
Student, Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan.
mirsobit_99@mail.ru, + 998909900982

KHOLOVA NARGIS,
Student, Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan.

MIRZARAKHIMOV OTABEK,
Student, Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan.

TURGUNBEKOV DOSTONBEK
Student, Tashkent Pediatric Medical Institute, Tashkent, Uzbekistan.

ABSTRACT:

Among the chronic complications of diabetes mellitus, lesions of the lower extremities are one of the main causes of patient disability and socio-economic damage.

According to Pavliashvili G.V. 2011. [1] Diabetes mellitus (DM) increases the risk of developing peripheral arterial diseases 3-4 times.

The mortality rate of patients with SDS is 2 times higher compared with patients with diabetes without this complication. One of the reasons for the development of purulent-necrotic complications in this group of patients is occlusive lesions of the main arteries. They are localized below the inguinal ligament, mainly affecting the popliteal and tibial arteries. However, with the improvement of the technique of endovascular operations in domestic and foreign literature, interest in endovascular treatment of patients with SDS has increased. Obviously, balloon angioplasty and stenting have several advantages over open surgical interventions. Low mortality, low complication rate, the ability to perform operations under local anesthesia, and early activation of patients can be used in all categories of patients [2]. Nevertheless, in the treatment of patients with SDS, a number of unresolved issues remain that require further study to select the optimal tactics aimed at saving the limb in this severe category of patients.

KEY WORDS: diabetes mellitus, SDS, purulent-necrotic complication, WHO, angioplasty.

DIABETES EPIDEMIOLOGY:

Diabetes is a global problem society.

In 2016, the first WHO global report on diabetes was held. According to WHO, diabetes in 2030 will be the seventh leading cause of death? In the world, the number of patients with diabetes in 2015 at the age of 20-79 years it amounted to 415 million, while 215.2 million were men and 199.5 million women. This is 8.5% of the population and their number is increasing every year [3]. In 2009, WHO epidemiologists predicted that the growth of

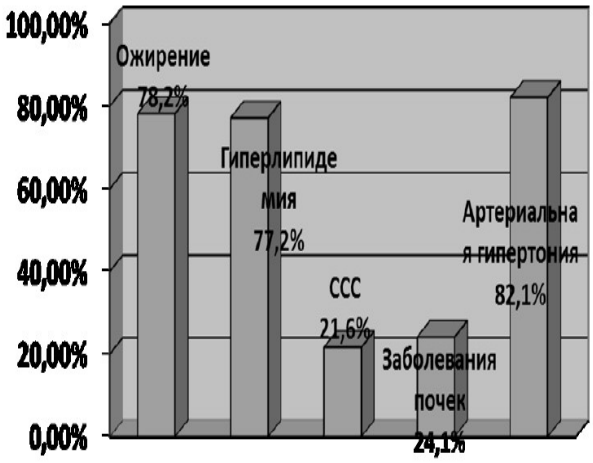
people with diabetes would reach 7.7%, which is 439 million adults in the world by 2030 alone. However, these figures are almost closer to the data of 2014 [3,4]. According to the forecasts of the International Diabetes Federation, by 2040 the number of people with diabetes will increase to 642 million [6].

According to the International Diabetes Federation, global healthcare costs for treating diabetes by 2040. Will increase by 19% [7].

In the Republic of Uzbekistan, a high level of diabetes prevalence is due to an increase in type 2 diabetes among adults [8]. The average annual growth is 6.23% [9], [10], [11], [12]. More than 90% of people suffer from type 2 diabetes, while 50% of cases remain undetected [13].

RESULTS:

Retrospective analysis from a 2016 KristyIglay, Ha-kima Hannachi study. [14] showed that at the time of the study, in the group, 97.5% of patients with type 2 diabetes had one concomitant disease, and 88.5% of patients had more than two, it was found that the most common concomitant diseases were arterial hypertension - 82.1 %, overweight or obesity -78.2%, hyperlipidemia - 77.2%, chronic kidney disease -24.1% and cardiovascular disease -21.6% (Pic. 1).



Picture 1. The presence of concomitant pathology in patients with type 2 diabetes

In addition, according to a study by AbdulghaniH. Al-Saeed, MariaI. Constantino, Lynda Molyneaux 2016 [15] diabetes rejuvenaAtion occurs.

Diabetes mellitus in accordance with the Code of the Republic of Uzbekistan "On the health of the people and the health care system" belongs to the category of socially significant diseases. [17].

According to the World Health Organization, in Uzbekistan 11.5% of the population suffers from diabetes [18].

Expenditures on diabetes in the Republic of Uzbekistan amount to 765 billion soums (75 million US dollars) [19].

The incidence rate of type 2 diabetes mellitus recorded in 2015 in the republic amounted to 1473.6 cases per 100 thousand people [20]. According to official WHO data, in 2017, 16 thousand Uzbeks were diagnosed with diabetes, the total number of diabetics in the country in 2017 was 308 thousand people. The World Health Organization believes that this figure is much larger. According to experts, it is expected that by 2030 this disease will be diagnosed in a million citizens of our country. [21]

EPIDEMIOLOGY OF DIABETIC FOOT SYNDROME:

One of the most dangerous vascular complications of diabetes is: damage to the main arteries of the lower extremities, they become the main cause of disability and death of patients.

The problems of treating chronic lower limb ischemia are due to the ever-increasing incidence of this type of pathology. The frequency of development of chronic ischemia in these patients, indicating a decompensating of blood circulation, is 400-1000 cases per 1 million. Population per year, and according to WHO forecasts, in the coming years it will increase by 5-7%. According to A.V. Pokrovsky,

V. Dan 2011 [22]. The expected mortality of patients with critical lower limb ischemia in the 1st year of the development of the syndrome increases from 25 to 60–70%. Even with treatment in a specialized hospital, the number of amputations reaches 10–20%, and the mortality rate is 15%.

Chronic obliterating diseases of the arteries of the lower extremities (HOZANK) are one of the main causes of early disability and mortality in patients of working age. [23].

Currently, published data of foreign authors to assess the epidemiology of this disease in the world. Thus, the UK Society of Vascular Surgery conducted a national study in the UK and Ireland, according to which the spread of CINC (critical lower limb ischemia) is 400 new cases per 1 million population per year [24].

If we assume that the average prevalence of intermittent claudication is 3% of the population and critical ischemia of the lower extremities occurs in 5% of cases within 5 years, then the frequency of CINC is 300 new cases per 1 million population per year [25], [26].

In the United States, several million people with amputated limbs live. Every year, 280–300 lower limb amputations are performed per 1 million inhabitants. In Europe, this figure is 250 operations per million inhabitants, in Japan - 210, and in Russia - 500. [27] (Fig. 2)

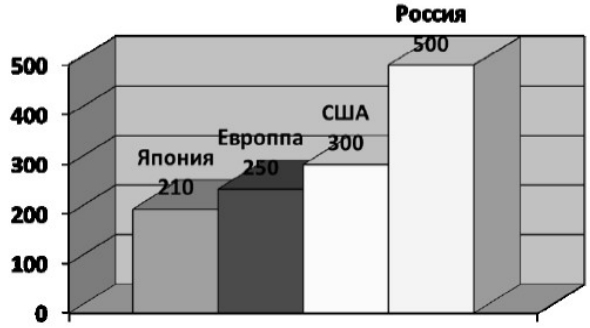


Figure 2. Amputation per 1 million inhabitants. Komsomolskaya Pravda data, medicine and health from 2017 (Electronic resource)

In Uzbekistan, according to the society for the study of diabetes, for 17 million people - about 2500-3000 amputations

The problem is not only in the number of such operations, but also in the fact that their exact number is unknown [28].

MODERN METHODS OF TREATING SDS:

The treatment of this group of patients is a complex problem. The possibilities of conservative treatment and indirect methods of revascularization in such patients are usually also already exhausted, which leads to the need to perform amputation.

According to Magomedov Sh.G., Dzhurakulova Sh.R. 2018. [24] and in a number of large population and national registers, the frequency of large amputations varies between 120 to 500 per 1 million people per year, for example, in the Russian Federation up to 300 amputations of vascular origin per 1 million population per year are performed. The frequency of deaths after performing amputation in the early postoperative period with transmetatarsal amputation of the foot reaches 5.6%, with amputations of the lower leg - 5-10%, hips –15–20%.

Mortality in patients with critical lower limb ischemia within 30 days after high amputation is 25-39%, within 2 years - 25-56%, and after 5 years - 50-84% (Fig. 3)

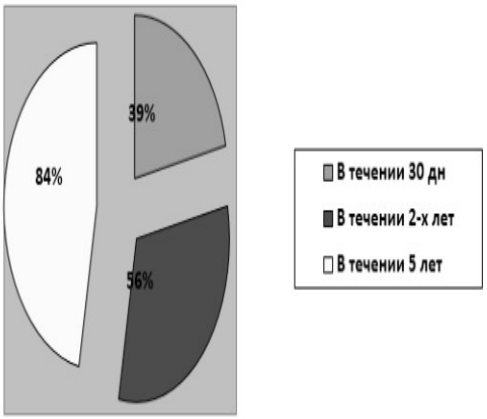


Figure 3. Mortality of patients after high amputations, according to data from 2018. RUz

X-ray surgery is considered the method of choice in the treatment of patients with atherosclerosis obliterans of the lower limb arteries. The advantages of x-ray surgical methods are low invasiveness and trauma, a significant reduction in the length of hospital stay of patients, the possibility of invasive interventions in patients with severe concomitant diseases, the possibility of performing a second intervention in the same area, the absence of the need for general anesthesia [29]

In recent years, there have been many reports of the use in the treatment of vascular pathologies, including those associated with diabetes mellitus (DM), the drug sulodexide (Wessel Douay F, "AlfaWassermann") from the group of glycosaminoglycans (GAG), consisting of a heparin-like fraction (80%) and dermatan sulfate (20%). Sulodexide has, first of all, a pronounced angioprotective effect - having tropism to the vascular wall and adsorbed mainly (90%) by the endothelium, the drug restores the density of the negative electric charge of the basement membrane and the integrity of the vascular wall; antithrombotic effect - suppresses activated factor Xa, thrombin, stimulates the synthesis and secretion of prostaglandin I2, reduces the level of fibrinogen; fibrinolytic - activates the release of tissue plasminogen activator (t-PA) and reduces the content of tissue plasminogen activator inhibitor in the blood.

The drug sulodexide (Wessel Duet F®), included in the standard conservative therapy complex, is available in 2 ml ampoules (600 LU) and in 250 LU capsules. It is used intravenously, intramuscularly and orally (in capsules).

The drug is a natural product isolated from the mucous membrane of the small intestine of a pig and is a mixture of glycosaminoglycans, in which the heparin fraction is 80%, and dermatan sulfate is 20%. Sulodexide has an antithrombotic, profibrinolytic, anticoagulant and angioprotective effect. In addition, it normalizes the rheological properties of blood by lowering triglycerides and lowering blood viscosity.

REFERENCES:

1) Pavliashvili G.V., Dissertation for the degree of candidate of medical sciences 4857033 // Surgical treatment of patients with diabetic foot syndrome: the role of balloon angioplasty and stenting of arteries of n / extremities. Saratov 2011
2) Magomedov Sh.G., Dzhurakulov Sh.R. The experience of endovascular interventions in the treatment of patients with critical lower limb ischemia // Moscow Surgical Journal. 2018, 2 (60). Page 52- 56
3) Electronic resource: http://www.medinfo.kz
4) Shaw JE, Sicree RA, Zimmet PZ, Global estimates of the prevalence of diabetes for 2010 and 2030. “Diabetes Re-search and ClinicalPractice,” http://www.sciencedirect.com/science/journal.
5) Evaluation of feasibility of ankle pressure and foot .oximetiy values for the detection .of critical- limbdschemiaun; diabetic patients / E. Faglia, G. Clerici, .M. Caminitietal: .// Vascular Endovascular, Surgery; '- 2011.- No1.- P.T06
6) IDF Diabetes Atlas Seventh Edition 2015 [Electronic Resource]. - Access mode: http://www.diabetesatlas.org/
7) Udovichenko OV Diabetic foot / O.B. Udovichenko; N: M: Trekova. M .: Practical medicine, 2010.-271 p.
8) Suntsov Yu.I., Bolotskaya L.L., Maslova O.V., Kazakov I.V. The epidemiology of diabetes mellitus and the prognosis of its prevalence in the Russian Federation // Diabetes mellitus №1 / 2011. - p. 18