

Modern clinical and therapeutic aspects of "diabetic foot" infections

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SUMMARY

Diabetes is a chronic condition of the pancreas, a heterogeneous syndrome, from an etiological, pathogenic, clinical and therapeutic point of view characterized by chronic hyperglycemia, caused by decreased insulin resistance and / or reduced insulin resistance (insulin resistant) of various tissues, mainly muscular, adipose and hepatic. Diabetic foot is one of the most mutilating and severe complications of diabetes, its prevalence gradually increasing over the years. At the same time, diabetes is a very common pathology, taking into account the fact that the lifestyle of the population is becoming more and more problematic, being associated with obesity and sedentary lifestyle. As a result, the complications of this pathology (including the diabetic foot) will become very common as time goes on. At the same time, despite the progress made in recent years, diabetic foot ulcers continue to be a worrying issue. I chose this topic because diabetes is a topical issue in medicine, its complications are many, and the patient with diabetes is still not sufficiently educated and aware of the severity of pathologies that may be associated with or even caused by diabetes, some of which require more frequently surgical treatment.

Diabetes affects 1 in 10 Romanians today, and Sibiu County is among the top counties in which patients with diabetes have a high life expectancy.

The dual purpose of this paper is, on the one hand, to develop a diagnosis and treatment of diabetes and its formidable complication - "diabetic foot", based on data from the literature applied to their own case studies, and on the other part of analyzing the prophylactic stages and the risk of "diabetic foot", the existence of the risk of amputation, but also the postoperative evolution. We also studied the existence and impact of risk factors on

postoperative morbidity and mortality in patients with diabetes mellitus complicated by "diabetic foot".

The paper is structured in two parts.

The first part contains theoretical considerations about the anatomy and embryology of the lower limb, the complications of diabetes, the diagnosis and treatment of the diabetic foot. We paid close attention to the specific pathology that occurs in the lower limbs as a result of the evolution over several years of diabetes, a concept that integrates several diseases or complications of diabetes (diabetic polyneuropathy, diabetic microangiopathy, perforating sore, gangrene).

The second part includes practical aspects, diagnosis and various methods of treatment, both surgical and medical used, statistical evaluation of the results obtained, achievement of an amputation risk score in diabetic patients who have developed lesions of the "diabetic foot". the study of the complementary methods of modern therapy surgery for diabetic foot infections - vacuum therapy and modern absorbent colloidal dressings, comparing the results of modern therapy with the conservative one for diabetic foot infections.

In the study we performed, we followed the patients with "Diabetic Foot" who were treated in the Surgery Clinics I and II within SCJUS and Proctoven Clinic. The objectives of the study were represented by:

Main:

- Identification of patients with Diabetic Foot
- Identification of the total number of those who underwent major surgery, such as amputations, disarticulations
 - Achieving an amputation risk score for diabetic patients with "diabetic foot" injuries
 - The study of modern therapy methods complementary to surgery in the current treatment of diseases grouped under the name of "diabetic foot" - vacuum therapy and modern water-absorbent dressings.

- Comparing the results of modern therapy with conservative therapy for diabetic foot infections.

Secondary:

- Observing the influence of risk factors and comorbidities in the evolution of these patients

- Identifying the influence of various factors such as (age, environment, sex, etc.) associated with this pathology.

Some of the most important conclusions of my study are listed below

Resonance comorbidities on the occurrence of diabetic foot lesions in patients with diabetes were represented by: hypertension, CIC, heart failure, CKD, chronic venous insufficiency, AOMI, stroke, COPD, etc.

An important role in the occurrence of diabetic foot injuries is played by risk factors. Those for whom we have proven the influence in aggravating diabetic foot injuries are: smoking, obesity, dyslipidemia, unbalanced diabetes mellitus ($HbA1c \geq 7.5\%$), age of diabetes over 5 years, hepatic steatosis, various heart diseases present.

According to the study, radical amputation surgeries were clearly required in patients with risk factors.

The risk score allows both patients and diabetologists, surgeons to estimate in advance the possibility of amputation of patients with diabetes and diabetic foot injuries.

Patients with type 2 diabetes and lesions of the diabetic foot had a much more serious evolution, mainly due to the added risk factors, but also due to the pre-existing comorbidities.

Among the modern therapies for patients with diabetes and diabetic foot injuries, analyzed in our study, we found the superiority of Vacuum therapy over hydrocolloid dressings. We found a higher rate of closure of ulcers that were treated using negative pressure therapy and concluded that it is a safe and effective way to improve the healing potential of diabetic foot injuries.

The neutrophil / lymphocyte ratio and the thrombotic / lymphocyte ratio are cheap and easily accessible biomarkers that have been shown to be useful in analyzing the onset and progression of diabetic foot, correlating with the severity of diabetic foot.

Modern Diabetic Foot Therapy should be tailored to the type of Diabetic Foot injury, the location, the therapeutic options available in the clinic where the therapy is performed and last but not least the patient, his degree of compliance and the financial possibilities he has.

Keywords: diabetic foot, risk score.