

# Diabetes mellitus in the Internal Medicine Department of the Regional Hospital in Peja, January-December 2021

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## ABSTRACT

Diabetes is a relatively common disease that affects 2-4% of the US population. This disease develops due to lack of insulin and presents with chronic disorders of carbohydrate metabolism as well as fat and protein metabolism.

**Aims.** To present the number of cases that have been affected by diabetes mellitus in the region of Peja in the period January to December 2021 compared with the number of diabetes in people with COVID-19 in the same ward.

**Material and methods.** The descriptive component of the epidemiological method from the retrospective aspect was used.

**Results.** A total of 500 patients with diabetes were admitted to the Internal Medicine ward of the Peja Regional Hospital (200 were with COVID-19), and 62 patients were registered in this ward for obtaining diabetes booklets who entered insulin for the first time (a total of 562 patients). From January to December, 2021, 99 patients with diabetes were presented for the first time, out of these 60 were with COVID-19 who hope that after 1-3 months they will not have diabetes and we are in contact, we are following them, as well as 39 patients who did not have COVID-19 are first-time diabetics. From January to September, 374 patients were treated in the Internal Medicine.

**Conclusions.** Based on the inclusion of this disease in the Peja Region, the data will serve us to take measures to prevent DM starting with patient education and to recommend preventive measures.

**Keywords:** diabetes, Peja Regional Hospital, COVID-19

## INTRODUCTION

Diabetes is a chronic disease that causes complications in all tissues and organs.

For success in the treatment of diabetes, cooperation is needed between the medical staff, the patient and the family members [1].

Diabetes is a relatively common disease from which 2-4% of the population suffer in the US [1]. This disease develops due to a lack of insulin and presents chronic disorders of carbohydrate metabolism as well as fat and protein metabolism [2].

For these patients, it is very important: education, self-control, self-care, physical activity, insulin, oral diabetes therapy, nutrition, medical therapy [1,2].

**The goals of this paper were:** To present the number of cases that have been affected by DM in

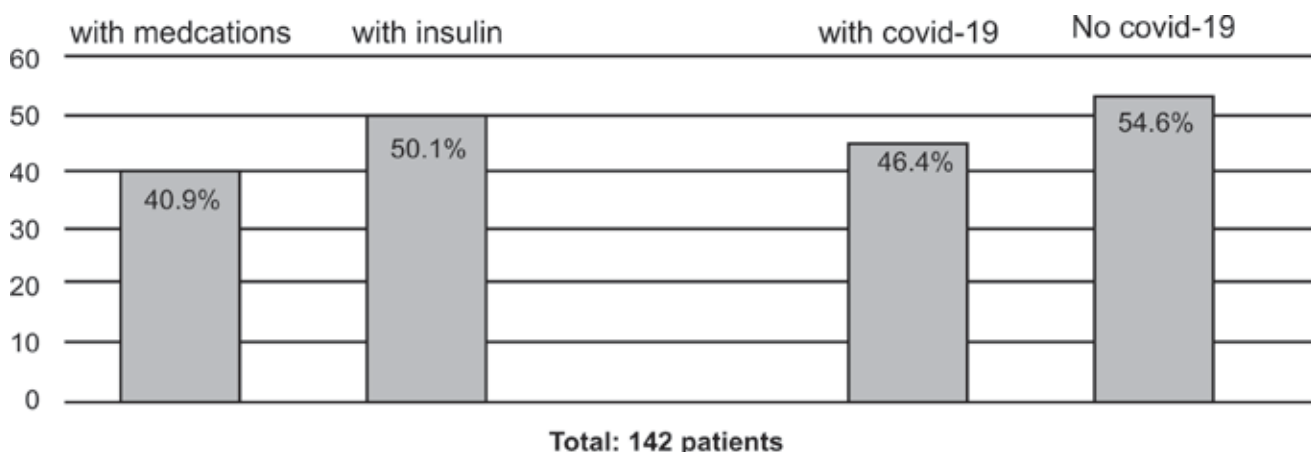
the region of Peja and have been admitted to the internal medicine department for the time period January to December 2021, comparing it with the number of diabetes in people with COVID-19 in the same department.

Material and working method: the descriptive component of the epidemiological method. Statistical parameters were used for data processing: relative numbers, stops, indicators, structure index, etc. Excel – charts are used for presentation.

## RESULTS

The results of this work are presented through Figures:

In Figure 1, can see that during the months of January, February, March and April there were a total of 142 patients with diabetes mellitus, where 84



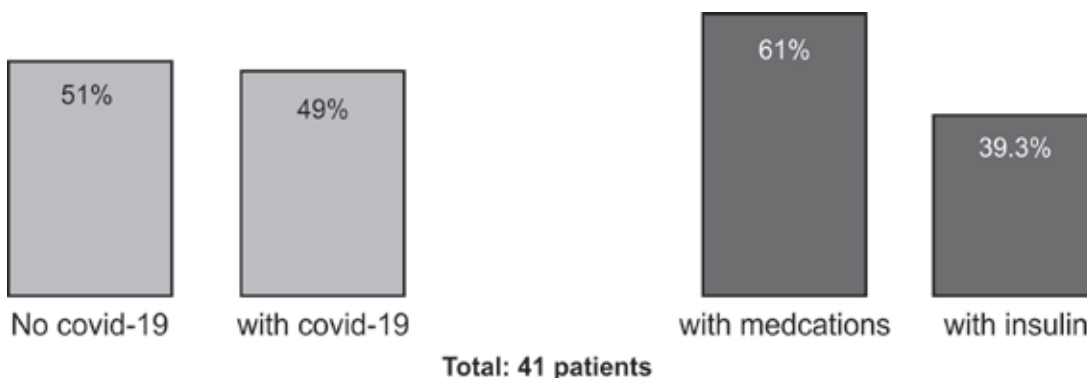
**FIGURE 1.** Patients treated in the Internal Medicine Department of Peja hospital in January, February, March, April

patients or 50.1%, were treated with insulin while 58 patients or 40.9%, were treated with medications. Of the 142 patients, 54.6% did not have COVID-19 while 46.4% were infected with COVID-19. Of the 46.4% of patients who had COVID-19, 28 patients or 41.7% had diabetes mellitus for the first time.

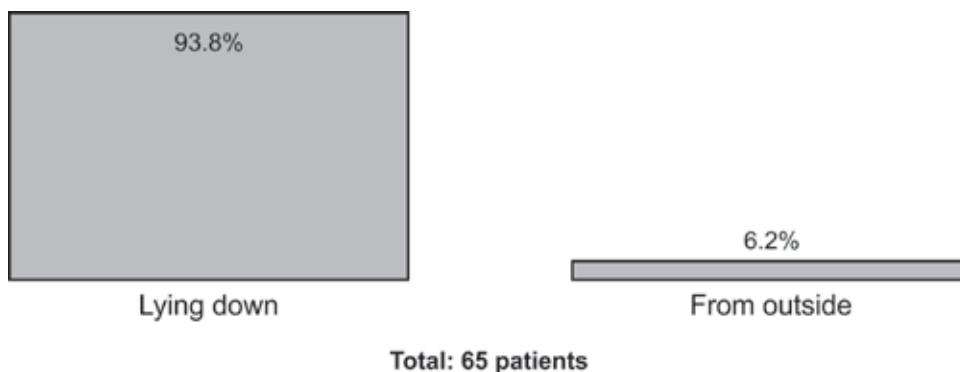
Figure 2 shows the patients during the month of May, where it can be seen that there were 41 patients in total. Of this number, 51% were not infected by COVID-19, while 20 patients or 49% were infected. Also 21 patients or 61.7% were treated with medications, while 13 patients or 39.3% were treated with insulin. Of the 49% who had COVID-19, 12

patients or 60% of them had diabetes mellitus for the first time. And 7 patients were not in the ward and were not infected with COVID-19, but they came for education and to receive insulin booklets sent by the Specialist Outpatient Clinic.

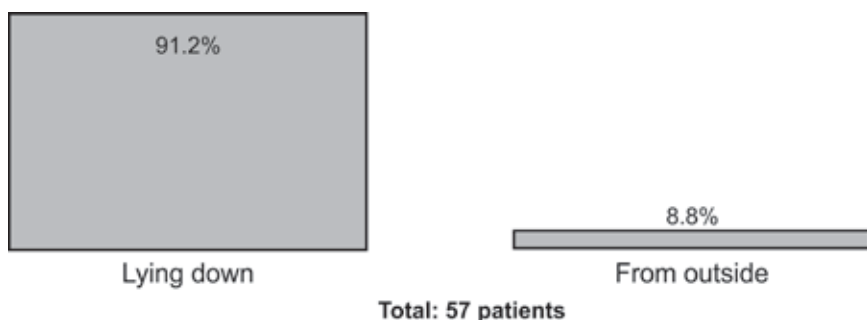
In Figure 3 we have presented the number of patients during the month of June, where it can be seen that there were a total of 65 patients, of these patients 93.8% were hospitalized while none of the patients received insulin for the first time, and 7 patients or 6.2% come from outside the Hospital (specialist ambulances) for education and obtaining booklets to access insulin. Patients with COVID-19



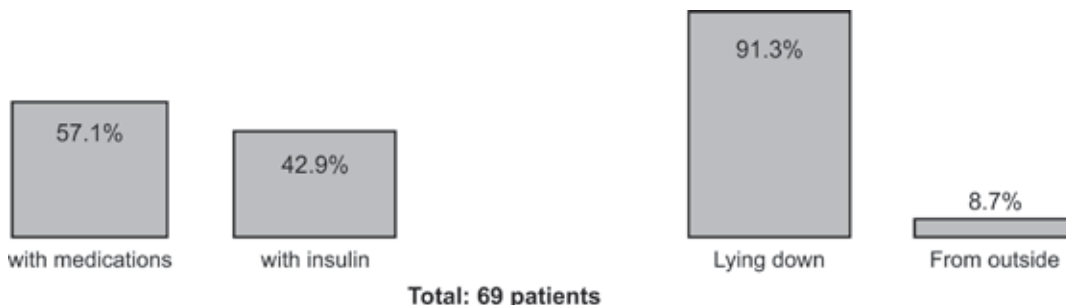
**FIGURE 2.** The number of patients during the month of May lying in the Internal Medicine Department of Peja Hospital



**FIGURE 3.** The number of patients during the month of June admitted and treated in the Internal Medicine Department of Peja Hospital



**FIGURE 4.** The number of patients during the month of July admitted with diabetes mellitus and treated in the Internal Medicine Department of Peja Hospital



**FIGURE 5.** The number of patients during the month of August admitted with diabetes mellitus and treated in the Internal Medicine Department of Peja Hospital

were transferred to the Neurology Department and none were with diabetes mellitus for the first time due to COVID-19.

From this Figure 4 it can be seen that during the month of July there were 57 patients, of which 52 patients or 91.2% were hospitalized, while 8.8% or 5 patients came to be educated about taking insulin and getting the booklet to start insulin for the first time who were diagnosed outside the Hospital (in Specialist Ambulance Clinics).

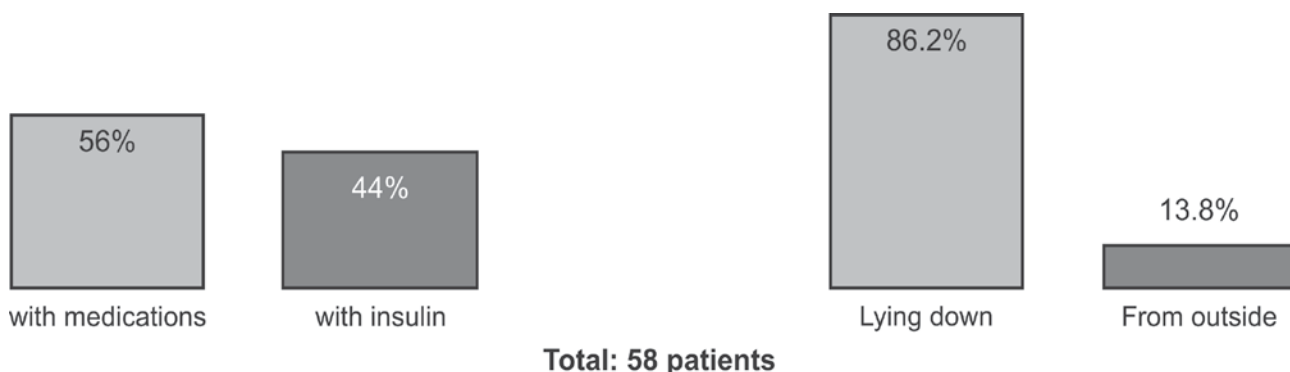
While from the total number in July 57 patients, 9 patients were for the first time with diabetes mellitus, 33 patients are treated with tablets and 19 with insulin.

During the month of August (Figure 5), there were a total of 69 patients, where 57.1% or 36 of them were treated with medications, while 42.9% or

27 patients were treated with insulin. Of these 69 patients, 8.7% or 6 patients were from outside (Specialist Outpatient Clinic) to receive education and obtain a booklet to access insulin therapy, while 91.3% or 63 patients were admitted to the Internal Medicine Department.

Over 86% of patients from the total number of 58 during the month of September (Figure 6) were hospitalized, while 13.8% or 8 patients came for education from outside-Specialist Ambulance and to receive insulin booklets. 56% of these patients were treated with medications and 44% with insulin. Of the 44% of patients treated with insulin, 22.2% or 4 patients were on insulin for the first time. While for the first time there were 16 patients with diabetes.

Nine patients did not receive therapy at all, they are only treated for the way of changing the lifestyle.



**FIGURE 6.** Number of patients during the month of September admitted with Diabetes Mellitus and treated in the Internal Medicine Department of Peja Hospital



**FIGURE 7.** The number of patients during the month of October admitted with diabetes mellitus and treated in the Internal Medicine Department of the Peja Hospital



**FIGURE 8.** The number of patients during the month of November admitted with diabetes mellitus and treated in the Internal Medicine Department of Peja Hospital

In this Figure 7, we see that during the month of October there were a total of 55 patients where 56.2% of them or 27 patients were treated with medications while 43.8% or 18 patients were treated with insulin. Also of this number, 87.2% were hospitalized, while 12.8% came from abroad - Specialist Amblanca for education and obtaining booklets to start with Insulin. Out of the total number, 14% or 8 patients had diabetes for the first time.

During the month of November (Figure 8), there were a total of 75 patients, 63.3% of whom were treated with insulin and 36.7% with medications. Of this total number of patients, 78.6% were hospitalized while 21.4% received insulin from outside. Of the 63.3% who were treated with insulin, 25% of them were on insulin for the first time.

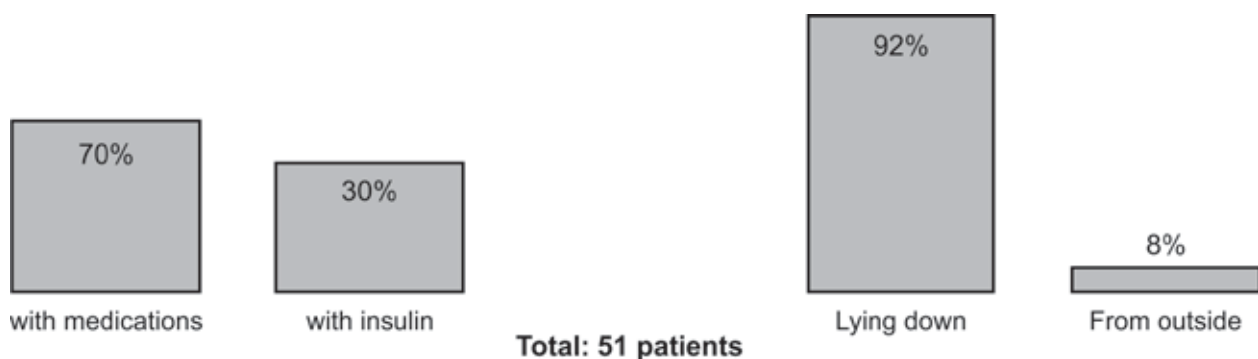
In the Figure 9, it can be seen that there were 51 patients, of which 46 were patients, 92% lying in the ward and patients or 8% coming from the Specialist Outpatient Clinics to be educated and to receive the

booklets to access insulin. Of the total number of patients, 70% were treated with medications and 30% with insulin.

Out of 46 patients admitted to the Internal Medicine Department, 5 patients were diagnosed with diabetes for the first time and started treatment with tablets. While with insulin, this month, 3 patients started insulin treatment.

In this Figure 10, the total number of patients during the months of 2021 with COVID-19, where out of 374 patients in total, 23.6% were hospitalized in the month of April, 21.6% in the month of March, 17.6% in the month of August, 16.2% in the month of September, 8.1% in February, 7.3% in January and only 5.6% in May.

There were a total of 374 patients with COVID-19, of these 53.4% had diabetes mellitus while 46.6% did not have diabetes mellitus. Of these 53.4% who had diabetes, 30% of them had diabetes for the first time (Figure 11).



**FIGURE 9.** The number of patients during the month of December admitted with diabetes mellitus and treated in the Internal Medicine Department of Peja Hospital

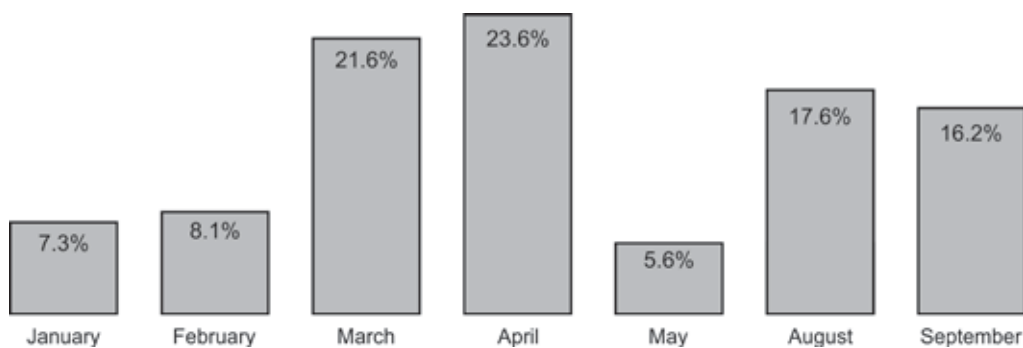


FIGURE 10. Total number of patients with COVID-19 in proportion to diabetes mellitus

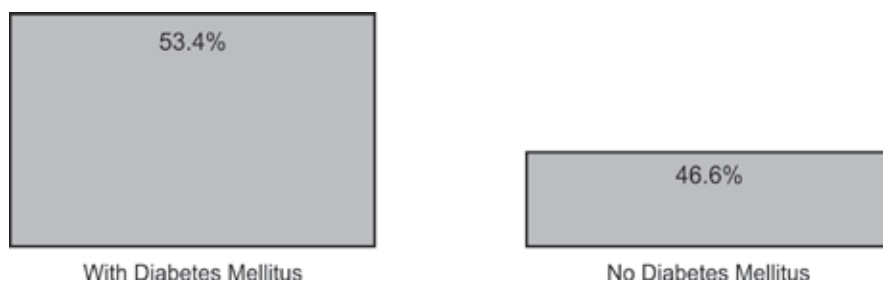


FIGURE 11. The total number of patients with COVID-19 in proportion to diabetes mellitus

## DISCUSSION

Diabetes is another major risk caused by obesity and which, according to the WHO, will quickly become a global epidemic [3]. Diabetic deaths will increase more than 50% worldwide in the coming years WHO estimates. In the world, over 463 million people suffer from type 2 diabetes with severe disorders. WHO predicts that deaths caused by diabetes will double by 2030 [3,4].

In Albania, there are over 83,000 DM patients diagnosed according to the data published on World Diabetes Day, and this number will triple if the number of those who are not aware that they have this disease is counted [5]. In our country there is a large number of diabetics who suffer from this disease, this year there are 9000-10000 patients with DM in Peja and its surroundings, while in 2014, there were 5000-6000 patients with DM. It is growing significantly, taking into account the percentage of residents, 10% are affected by this disease [4].

According to our paper of patients with DM is increasing and in 2021, there were 500 patients lying in the ward from this disease, 62 patients who asked for insulin booklets because they entered insulin for the first time, from the total number in this year in the Internal Medicine ward of Peja Hospital, 200 were COVID-19 from the total number of 374 patients with COVID-19 in this department. After treatment, all these patients were given education on self-management of diabetes and lifestyle changes. During this year, 99 patients were hospitalized with diabetes for the first time, of which 60 were with COVID-19, who are being managed by the Peja Hos-

pital team from their homes through phone calls and regular visits, where until now from in the month of September, they are completely free of diabetes, 33 patients have been stabilized only through diet, 15 are with diabetes. Siofor 850 mg 2x1 and others without therapy (in January 2022). 229 patients were treated with insulin and 267 with tablets during this period in general. In the years 2012-2014, diabetes was on the decline, taking as the number of patients lying in the Department of Internal Medicine in Peja Hospital, where in 2012 there were 200 patients lying on DM. in 2013, you had 165 patients and in 2014, there were 110 patients [4], while now only for one year there were 500 patients. And the reason for the increase in the number of people lying in the hospital after the COVID-19 infection was the non-functioning of the diabetes clinic with education at the Regional Hospital of Peja. From 2022, we claim to come out with a smaller number of people hospitalized from this disease, since we have the counseling center in operation and the patients are being made aware of self-management of blood sugar, receiving therapy, lifestyle changes, hygiene, management of the diabetic foot, contact for regular visits etc.

## CONCLUSION AND PROPOSAL OF MEASURES

Based on my work and other works, it can be seen that the number of cases with diabetes mellitus is increasing every day. Based on the inclusion of this disease in the Peja Region, the data will serve us to take measures to prevent DM starting with patient education and to recommend preventive meas-

ures. The reason for the increase in the number of patients in the Peja Hospital after the COVID-19 was the dysfunction of the Diabetes Education Center at the Peja Regional Hospital.

Now, from 2022, we claim to come out with a smaller number of people hospitalized from this disease, since we have the counseling center in operation and the patients are being made aware of self-management of blood sugar, receiving therapy, lifestyle changes, hygiene, management of the diabetic foot, contact for regular visits etc.

During the analysis of this paper and while browsing the various literatures, the number of patients with diabetes is increasing, and from this we can conclude that this disease is becoming more and more alarming, therefore we as medical personnel must take measures regarding the reduction of DM,

*Conflict of interest:* none declared

*Financial support:* none declared

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cases. In order to increase the surveillance of internal medicine diseases, especially DM, and the application of preventive and anti-epidemic measures in time, we recommend:

- The fight against DM should be a high priority for the Ministry of Health.
- To realize a special financial fund for the concrete implementation of projects with a national strategy for the purpose of prevention, research and education for DM.
- To improve hygienic and sanitary conditions in institutions.
- Provide the necessary tools for health education: leaflets, brochures, panel discussion, special educational shows, radio, etc.
- Organizations and refresher trainings were held for DM doctors and nurses.