

## **CHARACTERISTICS OF DIABETES MELLITUS TYPE 2 IN ELDERLY AND SENILE PATIENTS WITH PSYCHOTIC DISORDERS**

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*The study covered the diabetic patients treated in the Gerontopsychiatric Clinic for the period from October 1991 until April 1996. The patients from this contingent had peculiarities in the clinical manifestations and diabetic complications. The risk of hypoglycemia was especially dangerous for elderly people on a background of a therapy with neuroleptics. A special education was necessary for the patient, his relatives, and the medical staff. The treatment should be based on precise information taken from the patients themselves, their relatives in a very close collaboration with a nurse, endocrinologist, and psychiatrist.*

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**Key-words:** Diabetes mellitus, psychotic disorders, hypoglycemia, patient's education, elderly people

The peculiarities of diabetes mellitus in elderly persons are numerous. They are related to the clinics, the therapeutic behaviour and especially to the opportunities for patient's education (1,3,7). That is why our aim was to trace the characteristics of diabetes mellitus in elderly psychotic patients where the self-control and treatment are difficult (4,5).

### **MATERIAL AND METHODS**

The study was carried out in the patients enrolled for a treatment at the

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Gerontopsychiatric Clinic for the period from 01.X.1991 until 30.IV.1996. Of a total of 2077 patients, 182 or 8,76 % were diabetics at  $67,57 \pm 6,32$  years of age. The data concerning the course of diabetes mellitus are gathered from the patients themselves, their relatives, the history of the disease and the personal ambulatory card. In 6 cases the diabetes was diagnosed during their hospital stay. The average duration of diabetes was of  $9,37 \pm 2,91$  years.

A total of 113 patients (62,08 %) were with good control of the illness and 69 (37,19 %) - with a poor one. The control was estimated by the blood glucose level at the beginning of hospitalization. Overweight was established in 7,14 % of the patients. Mean

values of the systolic arterial pressure (SAP) and diastolic one (DAP) when entering the Clinic were analyzed.

## RESULTS AND DISCUSSION

The greatest part of the patients (almost one half of the contingent) had depressive episodes (Table 1). Their frequency referred to all cases of depression hospitalized in the Clinic in this period was 22,72 %. The brain-vascular disease (BVD) was in 62,63 % or with a slight superiority over the ischaemic heart disease (IHD) – in 59,34 % of the cases. Diabetics with BVD were 64,67 % of all the cases hospitalized with BVD. The diabetic

microangiopathy was of lower incidence rate - in 9,23 %. The diabetic polyneuropathy was established in more than a quarter of them – in 26,37 % of the cases. Hypoglycemic episodes were observed in 36 patients (19,70 %). Their clinical manifestations were the following: coma - 1, transitory disorders in the behaviour - 13, asthenodynamia - 12, falls - 2, and delirious episodes - 8. The factors leading to this dangerous complication were the following: reduction of the food and complete refuse in 28 patients, overdose of the antidiabetic drugs - in 4, vomiting and taking of other drugs with hypoglycemic effect - in 2 patients each. Diabetic ketoacidosis was found in two cases.

**Table 1**  
*Psychotic disorders in elderly diabetic patients*

No	Diseases	n	%
1.	Dementia	25	13,73
2.	Depressive episodes	90	49,45
3.	Delirious and psychotic disorders	9	4,94
4.	Bipolar disorders	8	4,39
5.	Alcoholism-related disorders	15	8,24
6.	Schizophrenic disorders	10	5,49
7.	Schizo-affective disorders	6	3,29
8.	Somatoformic disorders	8	4,39
9.	Reactive psychoses	11	6,04

Arterial hypertension (AH) was found in 60,43 % with an average duration of  $10,85 \pm 1,74$  years. AH most frequently preceded diabetes mellitus. The SAP for the whole group was over 150 mm Hg and the DAP was under 90 mm Hg. SAP value in diabetics with AH was

significantly higher ( $p < 0,05$ ) referred to the whole number of observed patients, while DAP value differences were non-significant.

The treatment of diabetes was carried out with classical means such as diet and oral antidiabetics. Some pa-

tients were additionally given glucobay and metformin. The most common psychotic disorder in diabetics was the depression amounting according to literature data available up to 27 % (4,5). We found out a higher frequency - approximately in half of the cases, which was, probably, caused by the character of the examined population, i. e., elderly people. Diabetic macroangiopathy came to the fore (1,7) with a slight prevalence of the BVD over the IHD in our patients. The diabetic microangiopathy was a comparatively rare complication in elderly (2,6) which was also present in our contingent. AH often accompanied the diabetics compared to the non-diabetics at this age which is mainly on the account of SAP (1,2,6). These data were confirmed by our study.

The hypoglycemia in our patients was expressed mainly with neu-

rological symptoms. In 2/3 of the diabetics admitted in the Clinic because of delirious episodes at night nocturnal hypoglycemia was found. The diagnosis of this severe complication was embarrassed also by the use of neuroleptics. When prescribing an antidiabetic drug it was necessary to estimate very precisely the risk of hypoglycemia. Maintaining it close to normal limits would lower the possibility of such dangerous situations.

## CONCLUSION

The elderly diabetics with psychotic disorders are victims of excess of antidiabetic drugs or insufficient control. Patient's education should be accomplished with them and their relatives, in a close collaboration with a nurse, endocrinologist, and psychiatrist.

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## **Характеристика на захарен диабет тип 2 при болни в напреднала и старческа възраст с психични заболявания**

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**Резюме:** Проучването е осъществено върху диабетно болни, лекувани в Клиниката по геронтопсихиатрия за периода от м. октомври 1991 г. до м. април 1996 г. Наблюдаваната популация има особености в своите клинични изяви и усложнения на захарния диабет. Хипогликемичният риск е особено опасен за възрастни лица с психични заболявания. Необходимо е специално обучение на тези болни и обслужващия персонал. Лечението трябва да се базира върху прецизна информация, взета от пациента и близките в тясна колаборация с медицинска сестра, психиатър и ендокринолог.