

FACTORS INFLUENCING THE EFFECTIVENESS OF TREATMENT AND REHABILITATION OF HEMORRHAGIC STROKE WITH CONCOMITANT PATHOLOGIES

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Abstract

During the acute period of hemorrhagic stroke, patients with diabetes and early rehabilitation measures were carried out, and 70 patients with hemorrhagic stroke and diabetes without early rehabilitation measures were examined. All patients underwent subjective, objective, clinical-instrumental examinations, and the effectiveness of the early rehabilitation process was studied in patients with diabetes and in groups without diabetes.

Keywords: Hemorrhagic stroke, diabetes mellitus, early rehabilitation.

Introduction

Diabetic II-ischemic type and hemorrhagic stroke risk increases several times. Diabetes mellitus and hemorrhagic stroke together with sudden hemorrhagic stroke is a separate tetanus stroke relative to the stage of tetanus pregnancy [1]. Currently, the population is 3-4% diabetics, diabetics, diabetics on March 25, education is 15 steps less than life. [2] During the meeting, the parties discussed issues related to the diagnosis of diabetes and discussed issues related to it. Also, the population of the Sig population relatively hemorrhagic stroke March 4-7 PKK tetanus in Horasi hospital with type 2 diabetes mellitus. [3].

Study Objective:

Study of the effectiveness of early rehabilitation measures in hemorrhagic stroke with diabetes.

MATERIALS AND METHODS

Results of examination and analysis of 190 patients who were admitted and treated with the diagnosis of acute cerebral blood circulation disorder, hemorrhagic type in 2024-2025 in the Bukhara branch of the Republican Emergency Medical Scientific Center, emergency neurology and neuroreanimation departments in order to solve the scientific goals and tasks envisaged by our research work. provided. Patients with hemorrhagic stroke on the background of diabetes, group I (main) (BG) consisted of 70 patients, the ratio of women to men was 1:1.1 and the average age was 53.3 ± 6.2 , group II (comparative, control) (CG) who did not have diabetes in the anamnesis and examinations, the gender ratio was 1:2.5 with the predominance of women and men, and the



average age was 56.2 ± 4.9 , III – (respective) (RG) 60 people, the gender ratio Hemorrhagic stroke occurred on the background of diabetes mellitus in patients with an average age of 55.1 ± 10.3 , with a 1:1.7 male predominance.

Result and Discussion

Subjective, objective, laboratory and instrumental examinations of patients revealed changes that occurred in different levels of organs and organ systems due to diabetes. Special attention was paid to pathologies occurring in the cardiovascular system. All three groups of patients were given first aid and standard treatment procedures. Early rehabilitation measures, including psychological rehabilitation, physiotherapeutic procedures and therapeutic exercises, were recommended in both the main group and control group patients. Patients' condition was evaluated using NIHSS, Barthel scale, MRS and Rivermead mobility index on study days 1-2, 7-10 days, 21-24 days and 57-60 days.

In the study groups, the onset of the disease with loss of consciousness was observed in BG $2.5 \pm 1.75\%$, CG was not observed, and RG was observed in $5 \pm 3.4\%$ ($p < 0.001$). Cancer is observed in BG $18.75 \pm 4.36\%$, CG $15.71 \pm 4.35\%$ and RG $12.5 \pm 5.5\%$ ($p < 0.001$). Inability to express complaints BG $26.25 \pm 4.92\%$, CG $11.43 \pm 3.8\%$ and RG $20 \pm 6.3\%$ ($p < 0.001$), headache BG $20 \pm 6.3\%$, $90 \pm 3.35\%$, CG $87.14 \pm 4.0\%$ and RG $87.5 \pm 6.3\%$ ($p < 0.001$), dizziness BG $87.5 \pm 3.7\%$, CG $90 \pm 3.59\%$ and RG $p < 0.001$, nausea BG 23.75 ± 4.76 , CG $22.86 \pm 5.02\%$ and RG $30 \pm 7.5\%$ ($p < 0.001$), vomiting BG $11.25 \pm 3.53\%$, CG $7.14 \pm 3.08\%$ and RG $17.5 \pm 6.01\%$ ($p < 0.001$), and fatigue BG $88.75 \pm 3.53\%$, CG $88.57 \pm 3.8\%$ and RG $85 \pm$ observed in 5.65% ($p < 0.01$) cases. It can be observed that the general cerebral symptoms were expressed more deeply in the main group and the diabetes control group compared to the control group.

In the study, central cranial nerve damage was manifested in patients' complaints at different levels in the groups. Acute visual impairment was observed in G $7.5 \pm 5\%$, CG $1.43 \pm 5.13\%$ and RG $7.5 \pm 4.1\%$ ($p < 0.001$). Swallowing disorders were observed in all three groups, BG $n=10$, $12.5 \pm 3.7\%$, CG $n=3$, $4.3 \pm 5\%$ and RG $n=2$, $5 \pm 3.45\%$ ($p < 0.001$), speech disorder BG $n=49$, $61.25 \pm 5.45\%$, CG $n=40$, $57.14 \pm 5.91\%$ RG $n=19$, $62.5 \pm 7.65\%$ ($p < 0.01$) and the loss of speech AG $n=3$, $3.75 \pm 5\%$, CG, $n=1$, $1.43 \pm 1.42\%$ and RG $n=1$, $2.5 \pm 5\%$ ($p < 0.001$). In the results of the research presented above, it can be observed that in BG and RG, there is a relatively large number of focal symptoms and deep manifestations in BG and RG compared to CG.

1- table. Complications of diabetes in primary and diabetic control group patients

Complication	Basic group (n=70)		Respective group (n=60)	
	n	(%) \pm m	n	(%) \pm m
Diabetic angiopathy	70	100 \pm 0	40	100 \pm 0
Diabetic retinopathy	32	40 \pm 5,5	17	42,5 \pm 7,8
Diabetic nephropathy	36	45 \pm 5,6	19	47,5 \pm 7,9
Diabetic polyneuropathy 2	58	85 \pm 4,0	35	87,5 \pm 5,5
Diabetic polyneuropathy 3	12	15 \pm 4,0	5	12,5 \pm 5,2
Autonomic polyneuropathy	19	23,7 \pm 4,8	11	27,5 \pm 7,1



All $n=80$ patients of the main group accompanied by diabetes were complicated by diabetic angiopathies to varying degrees. Diabetic microangiopathy diabetic retinopathy AG $n=32$, $40\pm5.5\%$, RG $n=17$, $42.5\pm7.8\%$ ($p<0.001$), diabetic nephropathy AG $n=36$, $45\pm5.6\%$ and RG $n=19$, $47.5\pm7.9\%$ ($p<0.001$) were found. Diabetic polyneuropathy 2 degree AG $n=68$, $85\pm4.0\%$ and RG $n=35$, $87.5\pm5.5\%$ ($p<0.001$) diabetic polyneuropathy 3 degree AG $n=12$, $15\pm4.0\%$ and RG $n=5$, 12.5 ± 5.2 ($p<0.01$) and autonomic polyneuropathy AG $n=19$, $23.75\pm4.8\%$ and RG $n=11$, 27.5 ± 7.1 ($p<0.01$) was detected in cases.

Early rehabilitation measures, verticalization practice, psychological rehabilitation, physiotherapeutic procedures and therapeutic exercises were recommended in the main group and control group patients.

As a result, during passive verticalization, $97.5\pm0.5\%$ of patients with hemorrhagic stroke on the background of diabetes during passive verticalization were kept at $15-30^\circ$, $61.4\pm1.12\%$ in the control group, ($p<0.001$) and on days 5-7 of the study, patients who were brought to a vertical position of 90° were $65.0\pm0.92\%$ of the main group and $82.9\pm0.65\%$ of the control group, ($r<0.001$) when standing up slowly compared to the control group. formation of stagnation is observed.

In the direction of psychological rehabilitation, taking into account the individual characteristics of patients, rational psychotherapy, emotional psychotherapy or psychological conversation methods were conducted, and the level of anxiety in patients was assessed using the Taylor scale. The level of anxiety was initially relatively high in BG and RG patients, and after psychological rehabilitation procedures, it was observed that it decreased significantly in both BG and CG groups, despite the decrease in general anxiety in BG, a higher ratio of anxiety compared to CG was maintained. In RG, on the 7-10 th day of the onset of the disease, the level of memory increased compared to the 1-2 th day, and on the 21-24 th and 57-60 th day, this indicator was found to decrease, and this situation is based on the adaptation of the patient to the disease. In order to restore motor activity, electrostimulation and magnetotherapy methods were used in physiotherapeutic procedures.

Passive gymnastics and breathing exercises were used from the therapeutic exercise group. Also, taking into account the different situations of the paralyzed and healthy side of the body, appropriate approaches were made.

It was evaluated on days 1-2, 7-10, 21-24 and 57-60 using the Barthel scale. According to the Bartel scale, mild paralysis, moderate paralysis, and severe paralysis were evaluated based on the change of the average indicator dynamics in BG, CG, and RG. According to the Barthel scale, at the beginning of the study, on days 1-2, BG was 45.5 ± 1.81 points, on days 7-10 it was 69.4 ± 1.61 ($p<0.001$) points, on days 21-24 it was 76.4 ± 1.3 and 57 It can be observed that it improved by 84.2 ± 1.12 points in 60 days. CG, this indicator was initially 55.5 ± 2.38 on 1-2 days, 83.7 ± 2.01 on 7-10 days, 88.6 ± 1.52 on 21-24 days, and 92.6 on 57-60 days after the study. It was ±1.18 points ($p<0.001$). RG is 43.8 ± 2.47 points on 1-2 days, 57.5 ± 2.7 on 7-10 days, 65.4 ± 2.49 on 21-24 days and 74.5 ± 2.81 on 57-60 days did It can be observed that the ratio of the level of neurologic deficit between BG and CG was 1.22 at the beginning of the study and 1.20 at the end of the study. It can be observed that the recovery of AG patients as a result of treatment and early rehabilitation measures is slower than that of CG. Taking into account that all three groups were treated in the





same order, it can be observed that the return to an active lifestyle is slow in BG patients due to DM and its reasons. In RG patients, the proportion of patients with moderate and severe neurological deficits on day 1-2 of the study was found to be significantly higher than that of BG and CG on day 57-60 of the study.

CONCLUSIONS

1. In the investigations, the main group with diabetes background and the diabetic control group had more profound neurological deficits compared to the control group.
2. Significant recovery of neurological deficits was observed in the groups where early rehabilitation measures were taken, while in RG where early rehabilitation measures were not conducted, neurological deficits were recovered to a lesser extent compared to both groups.
3. According to Barthel, NIHSS scales, and Rivermid mobility index, the recovery process in hemorrhagic strokes caused by diabetes is less and slower than in the control group, which is explained by diabetes and its complications as one of the main reasons.

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