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- Article name:** Лечение гипертензивных кризов и мигрени с помощью СКЭНАРа
- Keywords:** SCENAR, cardiology, emergency, hypertensive crisis
- Summary:** The authors of this work set a goal to compare the influence of SCENAR therapy and medicaments therapy on parameters of arterial pressure and clinical manifestations of hypertensive crises in conditions of emergency. In the work the results of treatment of 128 patients of the various age with hypertonic (hypertensive) crises, who received preparations at home by calling the brigade of the first aid and in an admitting office of the emergency No 2 in Rostov-on-don are analyzed. As a result, it was concluded that SCENAR therapy is rather effective for the patients with the developed clinic of not complicated hypertensive crisis with neurovegetative symptomatology. Expressiveness of the effect occupies an intermediate position between isradipine and klonidine. At the same time, the duration of action exceeds that one of the specified preparations.

Treatment of Hypertensive Crises and Migraines with the Help of SCENAR

The Arterial hypertension and the diseases with a syndrome of arterial hypertension may be accompanied by acute and significant increase of arterial pressure with a typical clinical picture which is regarded as hypertonic or hypertensive crisis [2, 5]. It is known, that crises promote the formation of encephalopathy, the development of some fatal disorders of brain and coronary blood circulation [6]. up to 20-40 % of all the calls for the first aid brigades are connected with these crises [7, 8]. In connection with the significant heterogeneity etiology, pathogenesis and clinics, the absence of unified classification, the doctors prescribe a plenty of unjustified and ineffective medicines, and this is result in polypragmasy and complications [1, 3].

Taking into account that fact that calcium ions play a universal role at a final stage of contraction of smooth muscles of vessels, the antagonists of calcium may pretend to be the universal remedies in the basic treatment of hypersonic crises [5]. The Revision of the habitual judgements concerning the use sublingual only nifedipine, made it possible to recommend the patients having crises to take such antagonists of calcium as isradipine [9].

The sympathetic nervous system also has a great importance in the regulation of a vascular tone the maintenance of blood pressure [11]. Therefore it is logical to achieve the hypotensive effect by the decrease of the sympathetic activity in the central nervous system [10]. For this purpose the most time-tested means in the first aid conditions is klonidine which has the set of by-effects and restrictions to application.

Our attention for the cutting off of the hypertensive conditions during the fast and urgent help was drawn to the method of Scenar-THERAPY [4] (in connection with the probability of its active influence on the functional system of blood presser regulation.

The purpose of the research: the comparison of influence of the Scenar-and medicaments therapy on BP parameters and the clinical manifestations of the hypertensive crises in conditions of

the urgent help. The nearest period after the taking of the preparations or the influences was compared.

In the present work the results of treatment of 128 sicken of the various age with hypersonic (hypertensive) crises, who received preparations at home by calling the brigade of the first aid and in an admitting office of the emergency № 2 in Rostov-on-don are analyzed. For hypersonic crises we took all the cases of sudden and individually - significant increase of the systolic and - or diastolic blood pressure, accompanying by the reaction of the nervous system and disorder of the regional blood circulations [2, 5].

There was a typical clinical picture which the doctors, on arriving the patient after the cal of the not complicated hypersonic crisis concerning, according M.S.Kushakovskij [5] classification, to the neurovegetative form observed by the doctors on arriving to the patient after the call. The signes of the acute encephalopathy (headache, dizziness, nausea) and cardiac symptomatology were not criticalotherwise that would serve to immediate hospitalization the patients. All the cases of the complicated crises were not included by us into the statistical processing. The sample includes the patients having the systolic pressure not below 160 mm of mc. and diastolic not lower than 100 mm of mc.

In a hospital the sample of the patients was carried out during their hospitalization concerning the arterial hypertension complicated by the crisis current.

All the preparations as the means of the cutting off the hypertonic crisis were taken once sublingual after a tablet crushing. For the research of the effectiveness ,safety of the offered therapy, and comparability of the received data, there was developed report which was used at all the stages of help rendering was developed. The standard techniques and the techniques developed by the authors of Scenar-THERAPY were applied.

The control of the preparations effectiveness during the stage before the hospitalization was carried out during one hour, each 10 minutes, according to the dynamics of clinical manifestations of the disease and blood pressure on a right shoulder using the method of Korotkov. If there was no effect during 30 minutes, the treatment of the crisis was carried out with the help of other means.

Some patients had a repeated check of BP and symptomatology level 18-20 hours after the crisis cutting off, at absence of vasoactive medicines reception during this time.

The figures were processed with the help of the method of variational statistics with application of the t-criterion of Student and nonparametric rank criterion of Mann – Whitney. The processing was carried out using the computer Proxima MC 5/166I with the usage of standard software programmes packages, and also with the help of calculator Dual LEAF SL-240.

The results are given in tab. 1, 2. Thus, judging from the data, the effectiveness of Scenar-THERAPY occupies an intermediate position between the calcium antagonist isradipine and α_2 -adrenomimetic klonidine. After the Scenar influence the exact and authentic decrease of the systolic and diastolic BP with the most expressed decrease of the frequency of heart contructions in comparison with other methods of pharmacological treatment is marked. Authentically "a double parameter ", indirectly reflecting the requirement of a myocardium for oxygen is decreased.

In 1 hour after isradipine, klonidine taking or the Scenar influence the systolic BP decreased authentically on 19,6 %, 12,6 % and 18,6 %.The Duration of the hypotensive effect was 8-12, 4-8 and 14-18 hours.

The influence of isradipine; doze 2,5 mg (n=83), klonidine, doze 75 mkg (n=26) sublingual and Scenar-THERAPY (n=10) on blood pressure and frequency of heart contructions at patients with hypertensive crises (M+m).

Table 1.

Indices	Time in minutes					
	isradipine		klonidine		Scenar	
	background	20	background	20	background	20
1.BP syst. Mm of mercury column	199±2,6	178±2,9 (-10,6) *	207±6.8	197±7,2 (-4,8)	194±3,4	179±4,5 (-7,7) *
2.BP diast mm of mercury column	108±1,5	98±1,4 (-9,3) *	116±3.9	111±3.6 (-4,3)	104±2,1	99±1,1 (-4,8) *
3. HC(beatings a minute)	81±1,4	78±1,4 (-3,7)	78±1,9	77±2,1 (-1,3)	84±1,7	77±2,1 (-8,3) *
4."double indice", conventional units.	161±3,7	140±3,1 (-13) *	162±1,7	151±2,6 (-6,8) *	163±3,6	138±2,4 (-15,3) *

The note: * - $P < 0,05$ in relation to the background; in brackets –the percentage of a parameter to the background data.

As we can see from the tab. 2., Scenar-THERAPY more significantly cuts off cephalgia and the symptoms reflecting the condition of the brain blood flow. Alongside with it, the pains in the heart area, vegetative manifestations of a crisis have the tendency to increase.

Taking into account the expressed therapeutic effect of Scenar at a headache treating, we had the additional researches concerning the comparative studying of the effectiveness Scenar at migraine headache on a background of normal and increased blood pressure. The results are given in the tab. 3, 4. As it is seen from table 3, Scenar -THERAPY did not result in the essential changes of normal and decreased BP, in comparison with the situations when the headache was developing on a background of a crisis.

Table 2.

symptoms	isradipine		klopheline		Scenar-therapy	
	background	In 20 min	background	In 20 min	background	In20 min
1.headache	64(59%)	21(20%)**	19(73%)	15(58%)*	10(100%)	4(40%)**
2.pains in the heart area	37(34%)	7(6,5%)*	12(46%)	7(27%)*	6(60%)	2(20%)**
3."noise" in the head	44(54%)	11(13,4%)**	19(73%)	20(77%)	6(60%)	2(20%)**
4.sight worsening	10(12,2%)	2(2,4%)*	3(12%)	1(4%)	3(30%)	0
5."spots" before eyes	22(26,8%)	6(7,35)**	13(50%)	7(27%)*	4(40%)	0
6. Sickness	24(29,3%)	1(1,2%)**	15(58%)	12(46%)	3(30%)	0
7. vomiting	4(4,9%)	0	4(15%)	1(4%)	1(10%)	0
8.exitement	24(29,3%)	3(3,7%)*	16(62%)	6(23%)*	1(10%)	0
9. the state of inhibition	10(12,2%)	7(6,5%)	3(12%)	3(12%)	5(50%)	1(10%)**
10.parasthesia	13(15,9%)	7(6,5%)	13(50%)	2(8%)**	1(10%)	0
11.extremities tremor	10(12,2%)	4(4,9%)	15(58%)	12(46%)	3(30%)	1(10%)*
12.face hyperemia	27(32,9%)	17(20,7%)*	19(73%)	14(54%)	5(50%)	2(20%)*
13.hyperhydrosis	14(17%)	4(4,9%)	4(15%)	0*	1(10%)	0

14.dizziness	8(9,8%)	0**	2(8%)	2(8%)	0	0
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The Influence of Scenar-THERAPY on the parameters of hemodynamics at cephalgia at initially low and high parameters of blood pressure (M+m).

Table 3.

Indices	Background	20	Background	20
	Scenar (n=10)		Scenar (n=10)	
1.BP Syst. Mm of mercury column	125±3,7	124,5±4,1 (-0,4)	194±3,4	179±4,5 (-7,7) *
2.BP diast. Mm of mercury column	76±3,1	77±2,7 (+1,3)	104±2,1	99±1,1 (-4,8) *
3. FHC, beatings a min	80±2,7	77±2,1 (-3,8)	84±1,7	77±2,1 (-8,3) *
4."double indice", conventional units	100±2,9	96±2,2 (-4)	163±3,6	138±2,4 (-15,3) *

The note: see tab. 1.

The dynamics of the clinical manifestations which the patients with cephalgia had is given in tab. 4. Despite of the different level of blood pressure, Scenar caused the analgetic effect in both groups of the patients, on a background of the positive clinical symptomatology allows to draw the conclusion, about its normalizing action, first of all, on the state of brain blood flow.

The dynamics of the clinical changes which the patients with cephalgia had with initially low and high parameters of arterial pressure after Scenar-therapy taking(M+m).

The note: * - P < 0,05, ** - P < 0,01 - in relation to the background parameters; in brackets - the percentage of a parameter to the background data.

Table 4.

sympyoms	Scenar-therapy BP (low) (n=10)		Scenar-therspy BP (high) (n=10)	
	background	in 20 min	background	in 20 min
1.headache (numbers – 0-10)	5,5	1,7 **	6,2	1,6 **
2.pains in the heart area	3 (30%)	1(10%)	6 (60%)	2 (20%) **
3."noise" in the head	4 (40%)	1(10%) *	6 (60%)	2 (20%) **
4.sight worsening	1 (10%)	0	3 (30%)	0 *
5."spots" before eyes	1 (10%)	1 (10%)	4 (40%)	0 *
6. Sickness	4 (40%)	1 (10%) *	3 (30%)	0 *
7. vomiting	1 (10%)	1 (10%)	1 (10%)	0
8. exitement	2 (20%)	1 (10%)	1 (10%)	0
9. the state of inhibition	7 (70%)	4 (40%) *	5 (50%)	1 (10%) **
10.parasthesia	3 (30%)	0 *	1 (10%)	0
11.extremiies tremor	0	0	3 (30%)	1 (10%) *
12.face hyperemia	2 (20%)	1(10%)	5 (50%)	2 (20%) *
13.hyperhydrosis	3 (30%)	2 (20%)	1 (10%)	0
14.dizziness	4 (40%)	0 *	0	0

Thus, CKЭHAP-THERAPY is rather effective for the patients with the developed clinic of not complicated hypertensive crisis with neurovegetative symptomatology. Expressiveness of the effect occupies an intermediate position between isradipine and klonidine. The duration of action exceeds that one of the specified preparations. The alternative treatment of patients with the expressed headaches on the background of normal figures of the system with the help of the neuroadaptive method allows to speak about its normalizing effect on parameters of brain blood circulation and probable activation antinociceptive systems of a brain.

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