Medical treatment and efficacy of severe heart failure in the elderly

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Keywords: Severe heart failure in the elderly, Internal medicine; Treatment

Abstract: Objective: to observe the medical treatment and efficacy of severe heart failure in the elderly. Methods: 84 elderly patients with severe heart failure from December 2017 to March 2019 were randomly selected from our hospital and randomly divided into Control Group (N 42) and Experimental Group (n 42). The Control Group was given conventional medical treatment,and the experimental group was given Metoprolol combined with Irbesartan hydrochlorothiazide treatment. The LVEF, Nyha and BNP indexes, clinical efficacy and recurrence were compared between the two groups. Results: There was no significant difference in LVEF, NYHA and BNP between the two groups before treatment ($p > 0.05$) . After treatment, LVEF, Nyha and BNP of the experimental group were better than those of the routine group ($p < 0.05$) . The total effective rate of the experimental group was 92.86% , which was much higher than that of the control group ($p < 0.05$) , and the recurrence rate of the experimental group was 4.76% , which was much lower than that of the routine group ($p < 0.05$) . Conclusion: Medical Treatment of metoprolol combined with Irbesartan and hydrochlorothiazide can effectively relieve the clinical symptoms of elderly patients with severe heart failure, reduce the recurrence rate and improve the therapeutic effect. It has the value of clinical popularization.

In the clinic,severe heart failure in the elderly is one of the most common heart diseases. Patients with the disease often have symptoms of dyspnea, fatigue, fluid retention [1] .The important method of treating the disease is drug therapy, but the best treatment effect of which drug is not conclusive and needs further exploration and analysis.The following medical treatment of severe heart failure in the elderly and the efficacy of observation, detailed as follows.

1. Materials and methods

1.1 General materials

84 elderly patients with severe heart failure from December 2017 to March 2019 were randomly selected from our hospital and divided into Control Group (N 42) and Experimental Group (n 42). The Control Group was given conventional medical treatment, the experimental group was given Metoprolol combined with Irbesartan hydrochlorothiazide treatment. In the control group, there were 21 male and 21 female patients aged 64-89 years (mean: 77.64-2.01). In the experimental group, there were 22 male and 20 female patients aged 65-90 years (mean: 78.23-1.98) . There was no significant difference between the two groups ($p > 0.05$)

1.2 Method

For the control group, conventional medical treatment, diuretics, digitalis reagents, and increase the rest time.

For the experimental group, metoprolol was given a combination of Irbesartan and hydrochlorothiazide. Patients were given 12.5 mg metotrol and 6.25 mg Irbesartan hydrothiazide twice daily [2] .

Both groups were treated continuously for more than 15 days.

  DOI: 10.25236/medsbe.2019.059

1.3 Observation indicators

To observe the LVEF, NYHA, BNP Indexes and clinical curative effect of the two groups. Efficacy evaluation: Effective: clinical symptoms are effectively controlled; Effective: Clinical symptoms improved; Ineffective: Clinical symptoms do not improve, or even worse. Total efficiency apparent efficiency + effective efficiency

1.4 Statistical analysis

This experiment data uses SPSS20.0 software to carry on statistical analysis, in which the measurement data contrast uses the t test, the count data contrast uses the x 2 test, with $p < 0.05$ as the difference has the statistical significance

2. Results

2.1 Comparison of lLVE,NYHB,,BNP indicators

LVEF, Nyha and BNP were not significantly different between the two groups before treatment ($p > 0.05$) , but LVEF, Nyha and BNP were better in the experimental group after treatment ($p < 0.05$) See Table 1 for details.

Table 1 Comparison of LVEF, Nyha and BNP between the two groups（$\bar{x} \pm s$）

Group	total cases (N)	LVEF(%)		NYHA(%)		BNP(pg/L)	
		before treatment	after treatment	before treatment	after treatment	before treatment	after treatment
experimental Group	42	27.9±4.9	33.8±4.9	5	3.84±0.30	1052±180.9	974.3±130.1
control group	42	27.8±5.1	34.6±5.2	5	3.49±0.29	1063±420.6	765.9±82.3
p		>0.05	<0.05	>0.05	<0.05	>0.05	<0.05

2.2 Comparison of clinical outcomes

After treatment, the total effective rate of the experimental group was 92.86% , which was much higher than that of the control group ($p < 0.05$) .

Table 2 Comparison of clinical outcomes of two groups of patients[N(%)]

Group A	total case(n)	Apparent effective[n(%)]	effective[n(%)]	invalid [n(%)]	total effective rate[n(%)]
experimental group	42	23(54.76)	16(38.10)	3(7.14)	39(92.86)
control group	42	13(30.95)	14(33.33)	15(35.71)	27(64.89)
p					<0.05

2.3 Comparison of recurrence

After treatment, the recurrence rate of patients in the experimental group was 4.76 %, which was much lower than that of the normal group($P<0.05$), as shown in table 3.

Table 2 Comparison of recurrence between two groups [N (%)]

Group	total case(n)	Recurrence (n)	non-recurrence (n)	recurrence rate [n(%)]
experimental group	42	2	40	2(4.76)
control group	42	12	30	12(28.57)
p				<0.05

3. Discussion

In clinical practice, the incidence of severe heart failure is high in the elderly. The patients with this disease have abnormal cardiac contractility, decreased cardiac output, and circulatory congestion. The blood supply and oxygen supply to the organs are gradually abnormal,then causes each kind of clinical symptom and the sign. At this stage, the clinical treatment of severe heart failure in the elderly is usually metoprolol combined with Irbesartan hydrochlorothiazide treatment. Metoprolol is a common beta-receptor blockers that can effectively control a patient's heart rate, improve cardiac contractility, and shorten ventricular and atrial transport; Irbesartan and hydrochlorothiazide can effectively constrict a patient's blood vessels,inhibit the release of aldosterone in the body, with the role of decompression [3-4]. The combination of these two drugs can enhance the drug performance and promote the physical and mental health of patients. This study shows that,before treatment, there was no significant difference in LVEF, NYHA and BNP between the two groups ($p > 0.05$) . After treatment, LVEF, NYH and BNP in the experimental group were better than those in the control group ($p < 0.05$). The total effective rate of the experimental group was 92.86% , which was much higher than that of the control group ($p < 0.05$) , and the recurrence rate of the experimental group was 4.76% , which was much lower than that of the routine group ($p < 0.05$) .

To sum up, metoprolol combined with Irbesartan and hydrochlorothiazide for the treatment of severe heart failure in the elderly can effectively relieve the clinical symptoms of patients, reduce the recurrence rate of patients, and improve the treatment effect.It has the value of clinical popularization.

References

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