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# 氯沙坦联合麝香保心丸治疗高血压并心衰患者的疗效分析

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**摘要 目的:**探究氯沙坦联合麝香保心丸治疗高血压合并心衰患者的临床效果。**方法:**选取我院于2014年1月~2016年1月收治的152例原发性高血压合并心力衰竭患者,按照治疗方法的不同随机分为观察组和对照组,每组76例。对照组患者予以吸氧、β受体阻滞剂、利尿等常规治疗,观察组在常规治疗的基础上加用氯沙坦联合麝香保心丸治疗,比较两组患者治疗前后的血压、心功能、血清血清B型脑钠肽(BNP)及超敏C反应蛋白(hs-CRP)水平。**结果:**治疗后,两组患者的血压、左心室舒张末期内径(LVEDD)、左心室收缩末期内径(LVESD)、水平和血清BNP、hs-CRP水平均较治疗前显著降低( $P<0.05$ ),LVEF(%)水平较治疗前显著升高,且观察组患者的血压、LVEDD、LVESD水平和血清B型脑钠肽(BNP)、超敏C反应蛋白(hs-CRP)水平显著低于对照组( $P<0.05$ ),LVEF(%)水平显著高于对照组( $P<0.05$ )。**结论:**氯沙坦联合麝香保心丸治疗高血压合并心衰患者的临床效果优于常规治疗,可有效控制血压并改善患者的心功能。

**关键词:**高血压;心力衰竭;氯沙坦;麝香保心丸;心功能

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## Analysis of the Effect of Losartan plus Shexiang Baoxin Pill on Patients of Hypertension Combined with Heart Failure

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**ABSTRACT Objective:** To explore the effect of Losartan plus Shexiang Baoxin pill on patients of hypertension combined with heart failure. **Methods:** 152 cases treated in our hospital from January, 2014 to January, 2016 were randomly divided into the observation and control group with each group of 76 cases. Control group received conventional therapy of oxygen inhalation, β receptor blocker, on the basis of which the observation group was given Losartan plus Shexiang Baoxin pill. The blood pressure, heart function, level of BNP, hs-CRP were compared in both groups. **Results:** After therapy, the blood pressure, level of LVESD, LVEDD, BNP and hs-CRP in both groups were significantly decreased compared with those of before therapy ( $P<0.05$ ), the level of LVEF (%) obviously increased compared with that of before therapy. and blood pressure, level of LVESD, LVEDD, BNP and hs-CRP in observation group were significantly lower than the control group ( $P<0.05$ ); the level of LVEF(%) in observation group was significantly higher than control group ( $P<0.05$ ); **Conclusions:** Losartan plus shexiangbaixin pill has better clinical effect than conventional therapy in treating patients of hypertension combined with heart failure, which could effectively improve cardiac function.

**Key words:** Hypertension; Heart failure; Losartan; Shexiangbaixin pill; Heart function

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### 前言

高血压是以体循环动脉血压增高为主要特征的常见慢性疾病<sup>[1]</sup>,其靶向作用于心、脑、肾脏等机体重要器官,进而引起一系列并发症如冠心病、脑血管病、高血压性心脏病、慢性肾功能衰竭等<sup>[2]</sup>。我国心血管病死亡率位居首位,高于肿瘤、呼吸疾病等其他疾病<sup>[3]</sup>。高血压是心血管疾病的关键危险因素,近年来其发病率逐年升高,目前我国已有3亿左右(24%-27%)的高血压患者,每年新增病例达1000万<sup>[4]</sup>。心力衰竭是各种心血管疾病的终末阶段,其死亡率高,约25%的新发患者在1年内死

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亡。高血压是其致病的主要因素,约50%的高血压患者伴有不同程度的心力衰竭<sup>[5,6]</sup>。因此,积极探究有效的治疗方案对提高高血压控制率并改善患者预后的意义深远。本研究主要探讨了氯沙坦联合麝香保心丸治疗高血压合并心衰患者的临床疗效,现报道如下:

### 1 资料与方法

#### 1.1 一般资料

选择2014年1月~2016年1月我院收治的152例原发性高血压合并心力衰竭患者,按照不同的治疗方法将其随机分为观察组和对照组,每组76例。其中,观察组包含男性45例,女性31例,平均年龄(58.72±4.60)岁,平均病程(8.27±2.53)年,其中心功能Ⅱ级15例、Ⅲ级36例、Ⅳ级25例;对照组包含男性43例,女性33例,平均年龄(57.96±5.35)岁,平均病程

( $7.43 \pm 2.09$ )年,其中心功能Ⅱ级16例、Ⅲ级35例、Ⅳ级25例。两组患者基线资料及高血压及心力衰竭程度等方面无显著差异( $P>0.05$ ),有可比性。纳入标准:<sup>a</sup>所有患者均符合高血压合并心力衰竭的相关诊断标准;<sup>b</sup>所有患者根据NYHA心功能分级标准进行分级;<sup>c</sup>病例资料完整,所有家属签署知情同意书。排除标准:<sup>d</sup>合并肝肾等重要脏器病变;<sup>e</sup>合并神经系统疾病,无法配合治疗;<sup>f</sup>对所试药物过敏患者。

## 1.2 治疗方法

对照组患者予以吸氧、β受体阻滞剂、利尿等常规治疗。观察组在常规治疗的基础上加用氯沙坦联合麝香保心丸治疗,氯沙坦(杭州默沙东制药有限公司,国药准字H20000371,50mg×7片),1片/次,1次/天;麝香保心丸治疗(上海和黄药业有限公司,国药准字Z31020068,22.5mg×42粒),2粒/次,3次/天。3个月为一个疗程。

## 1.3 观察指标

**1.3.1 两组患者治疗前后血压比较** 所有患者均用血压仪测量晨起血压,测量时血压计高度与心脏位置持平,取3次测量平均值。

**1.3.2 两组患者治疗前后心功能比较** 行超声心动图(飞利浦公司Philips iU22超声仪)检查对比两组患者治疗前后左心室舒张末期内径(LVEDD)、左心室收缩末期内径(LVESD)、左室

射血分数(LVEF)水平。

**1.3.3 两组患者治疗前后BNP水平比较** 患者入院24 h内抽取空腹静脉血5.0 mL,静置、离心后收集血清于-80℃冰箱储存备用。采用酶联免疫法测定患者血清中BNP水平,试剂盒购于上海生工有限公司,所用操作步骤据严格按照操作说明书。

**1.3.4 两组患者治疗前后hs-CRP水平比较** 采用酶联免疫法测定患者血清中hs-CRP水平,试剂盒购于上海酶联生物有限公司,所用操作步骤均严格按照操作说明书。

## 1.4 不良事件发生情况

记录对照组和观察组患者的不良反应发生情况。

## 1.5 统计学分析

使用SPSS18.0软件,分别用卡方检验和t检验对计数资料和计量资料的进行统计学分析,以 $P<0.05$ 为差异有统计学意义。

## 2 结果

### 2.1 两组患者治疗前后血压比较

治疗前,两组患者血压(舒张压、收缩压)水平无统计学差异,具有可比性( $P>0.05$ )。治疗后,两组患者的血压水平均较治疗前显著降低( $P<0.05$ ),且观察组患者显著低于对照组( $P<0.05$ )。

表1 两组患者治疗前后的血压比较( $\bar{x} \pm s$ )

Table 1 Comparison of the blood pressure between two groups before and after treatment( $\bar{x} \pm s$ )

Groups	Number	DBP		SBP	
		Before therapy	After therapy	Before therapy	After therapy
Control group	76	94.32±10.97	88.15±8.70 <sup>a</sup>	150.27±19.27	135.16±17.11 <sup>a</sup>
Observation group	76	94.48±11.03	75.32±7.36 <sup>ab</sup>	151.09±19.33	120.37±8.77 <sup>ab</sup>

Note: compared with before therapy, <sup>a</sup> $P<0.05$ ; compared with the control group after therapy, <sup>b</sup> $P<0.05$ .

### 2.2 两组患者治疗前后心功能比较

治疗前,两组患者心功能指标,包括左心室舒张末期内径(LVEDD)、左心室收缩末期内径(LVESD)、左室射血分数(LVEF)水平无统计学差异,具有可比性( $P>0.05$ )。治疗后,两组

患者的左心室舒张末期内径(LVEDD)、左心室收缩末期内径(LVESD)水平均较治疗前明显降低( $P<0.05$ ),且观察组患者显著低于对照组( $P<0.05$ );两组患者LVEF(%)水平均显著上升,且观察组患者显著高于对照组( $P<0.05$ )。

表2 两组患者治疗前后的心功能比较( $\bar{x} \pm s$ )

Table 2 Comparison of the heart function between two groups before and after treatment ( $\bar{x} \pm s$ )

Groups	Number	LVEDD(mm)		LVESD(mm)		LVEF(%)	
		Before therapy	After therapy	Before therapy	After therapy	Before therapy	After therapy
Control group	76	62.32±4.97	53.15±4.70 <sup>a</sup>	53.97±4.27	46.16±5.11 <sup>a</sup>	34.49±3.56	40.93±4.28
Observation group	76	62.48±5.03	40.32±3.36 <sup>ab</sup>	53.59±4.33	38.57±3.77 <sup>ab</sup>	34.53±3.28	51.47±5.21 <sup>ab</sup>

Note: compared with before therapy, <sup>a</sup> $P<0.05$ ; compared with the control group after therapy, <sup>b</sup> $P<0.05$ .

### 2.3 两组患者治疗前后血清BNP、hs-CRP水平比较

治疗前,两组患者血清中BNP、hs-CRP水平无显著差异,

具有可比性( $P>0.05$ )。治疗后,两组患者BNP、hs-CRP水平均较治疗前显著降低,且观察组患者明显低于对照组( $P<0.05$ )。

表3 两组患者治疗前后血清BNP、hs-CRP水平比较( $\bar{x} \pm s$ , mg/L)

Table 3 Comparison of the serum levels of BNP, HS-CRP between two groups before and after treatment ( $\bar{x} \pm s$ , mg/L)

Groups	Number	BNP		hs-CRP	
		Before therapy	After therapy	Before therapy	After therapy
Control group	76	15.76±1.97	4.85±1.07 <sup>a</sup>	324.97±39.27	104.16±27.11 <sup>a</sup>
Observation group	76	15.84±2.03	5.72±1.36 <sup>ab</sup>	325.09±39.33	177.47±28.16 <sup>ab</sup>

Note: compared with before therapy, <sup>a</sup> $P<0.05$ ; compared with the control group after therapy, <sup>b</sup> $P<0.05$ .

## 2.4 两组不良反应事件发生情况比较

在治疗期间,两组患者均未出现严重不良反应。

## 3 讨论

高血压是临幊上常见且多发的心血管疾病,心脏是其靶器官之一,患者常因心脏器质性病变而导致心力衰竭<sup>[7,8]</sup>。另外,心力衰竭所致的血流动力学改变可致患者血流紊乱进而出现高血压等严重并发症。因此,高血压和心力衰竭在临幊上常常互为因果<sup>[9,10]</sup>,相伴而生,对于高血压合并心力衰竭患者的治疗首要原则在于有效控制血压的同时对心脏有一定保护作用,从根本上遏制高血压与心力衰竭之间的恶性循环。

本研究首次报道氯沙坦联合麝香保心丸治疗高血压合并心力衰竭患者。血管紧张素Ⅱ是肾素-血管紧张素系统(RAS)中的活性物质,与AT1受体结合可强效收缩血管,在高血压的病理过程中起着关键性的作用<sup>[11,12]</sup>。与贝那普利等抑制血管紧张素转换酶抑制剂不同,氯沙坦可竞争性结合AT1受体,阻断血管紧张素Ⅱ与受体结合继而引发的一系列相应的生理作用,与此同时,氯沙坦不影响其他激素受体与离子通道,避免由于抑制血管紧张素Ⅱ产生的水肿等不良反应<sup>[13,14]</sup>。麝香保心丸是治疗心血管疾病的常用药物,麝香、人参、苏合香脂、牛黄、肉桂等为主要成分,可起到活血化瘀,益气强心的功效<sup>[15]</sup>。现代医学研究也表明麝香保心丸可通过显著降低机体氧化应激状态,保护血管内皮,改善心肌微循环,降低炎症反应而起到强心的作用<sup>[16,17]</sup>。

本研究结果显示氯沙坦联合麝香保心丸治疗的高血压并心衰患者血压水平显著低于常规治疗的患者,而心功能较常规治疗的患者更优,提示氯沙坦联合麝香保心丸对高血压并心衰患者的临床效果更好。B型脑钠肽是心肌细胞合成的天然激素,主要分布在心脏和脑组织中,当心功能不全时,其分泌加快,血浆表达迅速增加,已有大量研究表明BNP水平与心功能分级呈正相关,已将其定义为心衰定量标志物<sup>[18,19]</sup>。hs-CRP是机体炎症与组织损伤的标志物<sup>[20]</sup>。本研究结果显示氯沙坦联合麝香保心丸治疗的患者血清BNP、hs-CRP水平均显著低于常规治疗的患者,提示其能显著减轻血压并心衰患者的心功能,可能与改善其慢性炎症状态有关。

综上所述,氯沙坦联合麝香保心丸治疗高血压合并心衰患者的临床效果更佳,可有效控制血压的同时显著改善患者心功能。

### 参考文献(References)

- [1] Yoon SS, Gu Q, Nwankwo T, et al. Trends in blood pressure among adults with hypertension United States, 2003 to 2012 [J]. Hypertension, 2015, 65(1): 54-61
- [2] Tientcheu D, Ayers C, Das SR, et al. Target organ complications and cardiovascular events associated with masked hypertension and white-coat hypertension: analysis from the Dallas Heart Study [J]. Journal of the American College of Cardiology, 2015, 66 (20): 2159-2169
- [3] Yang ZJ, Liu J, Ge JP, et al. Prevalence of cardiovascular disease risk factor in the Chinese population: the 2007-2008 China National Diabetes and Metabolic Disorders Study [J]. European Heart Journal, 2012, 33(2): 213-220
- [4] Zhang XH, Huo Y, Guan T, et al. Improved but still poor status of hypertension control in China: a cross-sectional analysis of screening data from 183 478 patients in tertiary hospitals [J]. The Lancet, 2015, 386: S75
- [5] Dokainish H, Teo K, Zhu J, et al. Heart failure in low-and middle-income countries: background, rationale, and design of the INTERNational Congestive Heart Failure Study (INTER-CHF) [J]. American heart journal, 2015, 170(4): 627-634
- [6] Garg S, Drazner MH. Refining the classification of left ventricular hypertrophy to provide new insights into the progression from hypertension to heart failure [J]. Current opinion in cardiology, 2016, 31(4): 387-393
- [7] Levy D, Larson MG, Vasan RS, et al. The progression from hypertension to congestive heart failure[J]. Jama, 1996, 275(20): 1557-1562
- [8] 李婷婷,冷耀红.贝那普利联合吲达帕胺治疗高血压合并心力衰竭的疗效[J].实用临床医学(江西),2015,16(2): 36-37  
Li Ting-ting, Leng Yao-hong. Clinical effect of benazepril combined with indapamide in patients of hypertension with heart failure [J]. Practical Clinical Medicine, 2015, 16(2): 36-37
- [9] Vasan RS, Levy D. The role of hypertension in the pathogenesis of heart failure: a clinical mechanistic overview [J]. Archives of internal medicine, 1996, 156(16): 1789-1796
- [10] Rodeheffer RJ. Hypertension and Heart Failure[J]. Circulation, 2011, 124(17): 1803-1805
- [11] Carney E F. Hypertension: New non-RAS peptide modulates the va-soregulatory effects of angiotensin II[J]. Nature Reviews Nephrology, 2015, 11(6): 27-30
- [12] Arfa I, Nouira S, Abid A, et al. Lack of association between renin-angiotensin system (RAS) polymorphisms and hypertension in Tunisian type 2 diabetics[J]. La Tunisie Mé dicale, 2010, 88(1): 38-41
- [13] Fuchs FD, Scala LC, Vilela-Martin JF, et al. Effectiveness of chlorthalidone/amiloride versus losartan in patients with stage I hypertension: results from the PREVER-treatment randomized trial [J]. Journal of Hypertension, 2016, 34(4): 1-9
- [14] Zhang L, He D, Lin J. Prehypertensive treatment with losartan, however not amlodipine, leads to long term effects on blood pressure and reduces the risk of stroke in spontaneously hypertensive stroke prone rats[J]. Molecular Medicine Reports, 2016, 36(36): 167-172
- [15] Xiang L, Jiang P, Zhan C, et al. The serum metabolomic study of intervention effects of the traditional Chinese medicine Shexiang Baoxin Pill and a multi-component medicine polypill in the treatment of myocardial infarction in rats [J]. Molecular Biosystems, 2012, 8(9): 2434-2442
- [16] 张阳阳,路岩,朱希芳,等.麝香保心丸对合并左室肥厚的高血压患者氧化应激反应及血管内皮功能的影响[J].现代中西医结合杂志,2016,25(16): 1718-1721  
Zhang Yang-yang, Lu Yan, Zhu Xi-fang, et al. Effect of Shexiang-Baoxin pill on oxidative stress and endothelial dysfunction in patients with hypertension with left ventricular hypertrophy [J]. Modern Journal of Integrated Traditional Chinese and Western Medicine, 2016, 25 (16): 1718-1721
- [17] 陈志亮,顾宁,赵庆峰,等.麝香保心丸抑制急性心肌梗死模型大鼠梗死组织炎性因子的研究 [J].中国实验方剂学杂志,2011,17(20): 224-227

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- ern Norway: a comparison to the literature [J]. Turkish Journal of Rheumatology, 2015, 30(3): 263-271
- [5] Kwok S K, Lee J, Yu D, et al. A pathogenetic role for IL-21 in primary Sjögren syndrome [J]. Nature Reviews Rheumatology, 2015, 11(6): 368-374
- [6] Mathews P M, Hahn S, Hessen M, et al. Ocular complications of primary Sjögren syndrome in men [J]. American journal of ophthalmology, 2015, 160(3): 447-452. e1
- [7] Koh J H, Lee J, Jung S M, et al. AB0579 Autoimmune Cytopenia in Primary Sjögren's Syndrome is Associated with Severe Ocular Surface Damage, Tear Film Instability, and Less Articular Involvement [J]. Annals of the Rheumatic Diseases, 2015, 74(Suppl 2): 1093-1094
- [8] Agarwal A, Kumar P, Gupta N. Pediatric Sjögren syndrome with distal renal tubular acidosis and autoimmune hypothyroidism: an uncommon association[J]. CEN Case Reports, 2015, 4(2): 200-205
- [9] Gupta A, Cohen N L, McCarthy S, et al. Protein-Losing Gastroenteropathy Associated With Sjögren's Syndrome: First Known Case Reported Outside of Asia [J]. ACG case reports journal, 2015, 2(3): 184
- [10] Alessandri C, Ciccia F, Priori R, et al. SAT0378 Autophagy is Up-Regulated in the Salivary Glands of Primary Sjögren's Syndrome Patients and Correlates with the Focus Score and Disease Activity[J]. Annals of the Rheumatic Diseases, 2015, 74(2): 796
- [11] Choi B Y, Yoo J J, Oh H J, et al. Extraglandular manifestations in Korean patients with primary Sjögren's syndrome [J]. Journal of Rheumatic Diseases, 2015, 22(3): 167-174
- [12] Omma A, Kucuksahin O, Sandikci S C, et al. Can the mean platelet volume be a predictor of disease activity in primary Sjögren syndrome? [J]. International Journal of Research in Medical Sciences, 2016, 4(4): 1237-1241
- [13] Nrushen P, Sunitha S, Suryanarayana V A. Clinical presentation of Sjögren's syndrome as hypokalemic paralysis [J]. Astrocyte, 2015, 1(4): 312
- [14] Bird A K, Meednu N, Anolik J H. New insights into B cell biology in systemic lupus erythematosus and Sjögren's syndrome [J]. Current opinion in rheumatology, 2015, 27(5): 461-467
- [15] Brito-Zerón P, Theander E, Baldini C, et al. Early diagnosis of primary Sjögren's syndrome: EULAR-SS task force clinical recommendations [J]. Expert review of clinical immunology, 2016, 12(2): 137-156
- [16] Miceli-Richard C, Wang-Renault S F, Boudaoud S, et al. Overlap between differentially methylated DNA regions in blood B lymphocytes and genetic at-risk loci in primary Sjögren's syndrome [J]. Annals of the rheumatic diseases, 2016, 75(5): 933-940
- [17] Signoriello E, Sagliocchi A, Fratta M, et al. Fingolimod efficacy in multiple sclerosis associated with Sjögren syndrome [J]. Acta Neurologica Scandinavica, 2015, 131(2): 140-143
- [18] Zeron P B, Kostov B A, Seror R, et al. FRI0419 Big Data Sjögren Project (Eular-SS Task Force International Network): Systemic Involvement at Diagnosis Evaluated by the ESSDAI in 3314 Patients with Primary Sjögren Syndrome [J]. Annals of the Rheumatic Diseases, 2015, 74(2): 578
- [19] Rivière E, Ly B, Boudaoud S, et al. Pitfalls for detecting interleukin-33 by ELISA in the serum of patients with primary Sjögren syndrome: comparison of different kits [J]. Annals of the rheumatic diseases, 2016, 75(3): 633-635
- [20] Lim S A, Nam S, Kwok S K, et al. Serologic Markers Are Associated With Ocular Staining Score in Primary Sjögren Syndrome[J]. Cornea, 2015, 34(11): 1466-1470

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- Chen Zhi-liang, Gu Ning, Zhao Qing-feng, et al. Influence of Heart-Protection Musk Pill on Inflammatory Factor in Myocardial Tissue in Rats with Acute Myocardial Infarction [J]. Chinese Journal of Experimental Traditional Medical Formulae, 2011, 17(20): 224-227
- [18] McCullough PA, Duc P, Omland T, et al. B-type natriuretic peptide and renal function in the diagnosis of heart failure: An analysis from the BNP multinational study [J]. Journal of the American College of Cardiology, 2003, 41(6): 222

- [19] Park HJ, Baek SH, Jang SW, et al. Direct comparison of B-type natriuretic peptide and N-terminal pro-BNP for assessment of cardiac function in a large population of symptomatic patients[J]. International Journal of Cardiology, 2010, 140(3): 336-343
- [20] Lee YS, Kim KS, Lee JB, et al. Effect of valsartan on N-terminal pro-brain natriuretic Peptide in patient with stable chronic heart failure: comparison with enalapril [J]. Korean Circulation Journal, 2011, 41(2): 61-67