Can Acupuncture Reduce a Transcutaneous Risk of Infection? II; Non-Transcutaneous Acupuncture Recovered HFrEF

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Abstract

Acupuncture and moxibustion had established in China and then transported among with neighbor countries. A digital evaluation had been scientifically tried to access with the method by Western techniques as CAM. However one of the absolute risk of acupuncture is not ruled out for a labile of infection by injection of needle transcutaneously. The purpose of this report was to try and show to prove free from the risk from transcutaneous injection of a needle. The purpose of this study was to apply to the patient who labile for infection by transcutaneous system. As a consecutive to the patient who had been in heart failure and reduced ejection fraction (HFrEF) was tried to applied with Japanese non-transcutaneous one.

This report concern elderly patient in chronic heart failure in contraction rate after western medications by extracorporeal circulation. The non-transcutaneous acupuncture and direct moxibustion (mainly at the 26 meridian acupoints) were given to the patient for twelve months. The patient had been treated two times a week for the relevant points of acupuncture and moxibustion. The results proved to the potential increase of stroke volume by echocardiographic assessment, starting phase 33% and to 36, 42, 45% at the following phase, compare to the starting value before this therapy. The other control patients without this CAM therapy remain the same level. The biochemical indications and other factor for life-related diseases also regulated to normal level. In this report, for recovering the chronic defect of pumping capacity could up-regulated by Japanese acupuncture and moxibustion at the chronic failure of the patient after two years of operation. Japanese type of acupuncture, non-transcutaneous noninvasive one, ruled out the risk of infections known to the high risk group in a diabetes mellitus around older age of patient.

Key words: Heart Failure and Reduced Ejection Fraction (HFrEF); Downsizing of Needle; Heart Failure; VHD; Contraction Rate; Acupuncture; Needle-Less Acupuncture; Non-Transcutaneous Acupuncture; Japanese Style; DM Risk Patient; Labile Infectious Patient

Introduction

An increase of elderly patient made a serious issue in worldwide and even in Japan. During the past years, a progress had been made quantitatively advances for the life span, regarding next have to be a qualitative advance for coming decade. Oriental medicine is one of the choice for the recovery of the acquired immune deficiency with HFrEF [1-4]. At this point of view, the oriental medicine is one of the possibility to resolve this purpose. However, many of the elderly patient combined diabetes mellitus due to life-style related diseases, hesitating original style of acupuncture increase of a risk of an infection from the accupoint in the traditional style transcutaneous one [5-11].

So in this report, the elderly patient had been hospitalized by chronic heart failure and acquired immune deficiency due to HFrEF selected especially innovative trial as non-transcutaneous method of stimulation. The patient select for the rehabilitation by regular objective therapy for rehabilitation plus oriental medicine especially, Japanese type of noninvasive acupuncture and moxibustion [12-14].

In Japan as in the HF therapy, and the treatment concept has been changed from cardiac strengthen, diuresis and vasodilation to inhibition of neuroendocrine system activation and ventricular reconstruction. Although survival rate of HF patients increased obviously, the 5-year fatality rate of HF is still very high. Ventricular reconstruction plays a crucial role in the initiation and development of HF [17-32]. It has been widely accepted that neurosecretory system activation is a critical factor triggering the myocardial and mesenchymal remodelin.
Methodology

Subjects and Patient

Statistical Analysis

The data were expressed as mean +/- standard deviation. The WBC is number of cells, granulocytes and lymphocytes were shown as % of total leukocytes and adrenalin content was expressed by pg (pikogram/ml). Group comparison of data was performed by ANOVA and post hoc multiple test.

Results and Findings

Non-transcutaneous Japanese Acupuncture and Moxibustion Up-regulated the Ejection Rate in the Ischemia-Reperfusion-Induced Heart Failure

Case Study in Valvular Heart Disease

Echocardiographic Analysis

On an extension of comparative study for down-sizing of acupuncture needle, a famous acupuncturist, Dr. Matsuo Arai innovated non-transcutaneous system for immune-depressive status of heart failure and reduced ejection fraction, HFrEF patient. By the echocardiographic analysis, the left ventricle function was evaluated by a Vevo 770 High-Resolution Imaging Systems (Hitachi Inc, Tokyo, Japan) with a 17.5 MHz linear array transducer and the following parameters were measured in long axis view in left ventricular: left ventricular end-systolic dimension (LVESD), left ventricular end-diastolic dimension (LVEDD), left ventricular end systolic volume (LVESV), left ventricular end diastolic volume (LVEDV), left ventricular ejection Fractions (LVEF), and left ventricular factional shortening (LVFS), the parameters was the average values of 5 cycles. (Figure 1 and Table 1).

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<table>
<thead>
<tr>
<th>Laboratory Findings</th>
<th>Days after treatment</th>
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<tr>
<td></td>
<td>Unit</td>
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<tr>
<td>Factor</td>
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<tr>
<td>Stroke volume</td>
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<td>Ejection Fraction</td>
<td>%</td>
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<td>LvDd/Ds</td>
<td>mm</td>
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<td>CTR</td>
<td>%</td>
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<tr>
<td>Control Patient 1</td>
<td>86 years old, AP, CAGB</td>
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<tr>
<td>Stroke volume</td>
<td>ml</td>
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<tr>
<td>Ejection Fraction</td>
<td>%</td>
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<td>LvDd/Ds</td>
<td>mm</td>
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<tr>
<td>CTR</td>
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<tr>
<td>Control Patient 2</td>
<td>77 years old, MR+TR, MVR+TAP</td>
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<tr>
<td>Stroke volume</td>
<td>ml</td>
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<tr>
<td>Ejection Fraction</td>
<td>%</td>
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<td>LvDd/Ds</td>
<td>mm</td>
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<td>CTR</td>
<td>%</td>
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<tr>
<td>Control Patient 3</td>
<td>57 years old, Infectious endocarditis, MVR</td>
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<tr>
<td>Stroke volume</td>
<td>ml</td>
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<td>Ejection Fraction</td>
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<td>LvDd/Ds</td>
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<tr>
<td>Control Patient 4</td>
<td>89 years old, AS, AVR</td>
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<tr>
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<td>Ejection Fraction</td>
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Table 2: Cardiac Function Displayed by Laboratory Findings.

Discussion and Conclusion

In conclusion, treatment with Japanese type of acupuncture ameliorate myocardial fibrosis and ventricular reconstruction and thus improve cardiac function, which may attributed to enhancing the expression and activation of construction rate and other biochemical factor for nephrotic, hepatoprotective activities [33-41]. The impairment of cardiac systolic and diastolic function causes deficiency of blood and oxygen in whole body and subsequently accelerates HF process. About anti-infectious care for acupuncture, there are two major factors for infection [25,26]. One is for infectious treatment for the needle and sterilized with ethanol wattle. Either is incomplete for anti-infectious sense. The most cool system of non-transcutaneous system of Japanese/Arai Method. The author wish to popular this Japanese style of acupuncture in this field.

Author's Contribution

Nobuo Yamaguchi (professor emeritus also at the institutions 4 and 5) study concept and design. Study implementation and surgical operation were managed by Shigeru Sakamoto and Yasuhiro Nagayoshi. Data were acquired by Daisuke Sakamoto and Takanao Ueyama. Study design for acupuncture competition was provided by Kenji Kawaiita. They along with all other authors, revised the manuscript for important content. All authors inspected and approved the final paper.

Disclosure Statement

The authors affirm that there are no conflict of interest and had no financial interest to the issue of this report.

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