

Exploration of Clinical Effect of Needle Warming Through Moxibustion on Urinary Retention After Stroke

Yifang Chen¹, Gaiqin Yang^{1,2,*}

¹Shaanxi University of Chinese Medicine, Xi'an, Shaanxi, 712000, China

²Shaanxi Hospital of Traditional Chinese Medicine, Xi'an, Shaanxi, 710000, China

Abstract: Through a comparative study on 82 patients with urinary retention after stroke (February 2022~February 2023), the control group adopted the conventional treatment mode (n=41), and the observation group adopted the warm acupuncture and moxibustion treatment mode (n=41). After receiving warm acupuncture and moxibustion treatment, the observation group effectively improved the residual amount of bladder urine, and the total effective rate of urinary retention after stroke and the quality of life of patients were significantly improved, superior to the control group.

Keywords: Needle Warming Through Moxibustion; Stroke; Urinary Retention; Clinical Effect

1. Introduction

Stroke is a relatively common clinical disease, which is called cerebral stroke in clinic. After stroke, patients will have symptoms such as hemiplegia of mouth and eye, cognitive impairment, dysphonia and hemiplegia, and even some patients will have symptoms of urinary retention. When patients have symptoms of urinary retention, they mainly show bladder filling, tummy dropping, and inability to urinate autonomously. For patients with urinary retention, in clinical practice, their neurological function can be recovered mainly through placing indwelling catheter and basic rehabilitation training and treatment, so that their ability to urinate autonomously can be exercised, which effectively improves their urination disorder. However, long-term use of indwelling catheter for treatment will lead to patients' dependence, which increases the risk of urinary tract infection to a certain extent and

even causes bladder and ureter reflux [1]. It can be seen that in addition to conventional treatment for patients with urinary retention symptoms after stroke, it is of great significance to adopt treatment methods that can replace conventional treatment and better improve the patients' urinary retention symptoms [2]. In clinical practice, for the patients with urinary retention after stroke, the method of traditional Chinese medicine treatment was proposed. Therefore, in order to better study the effect of traditional Chinese medicine on urinary retention, this paper mainly analyzes the effect of needle warming through moxibustion treatment on patients with urinary retention after stroke.

2. Information and Methods

2.1 General Information

82 patients with urinary retention after stroke in our hospital from February 2022 to February 2023 were randomly selected for a comparative study. They were numbered 1 to 82 according to the computer random numbering method. The single number was listed as the control group by using the conventional treatment mode (n=41). In this group, there were 23 male patients and 18 female patients with an average age of the patients was (65.78 ± 7.76) years old. The observation group was treated with needle warming through moxibustion (n=41). There were 24 male patients and 17 female patients with an average age of (66.09 ± 7.38) years old. They are comparable ($p > 0.05$) [3].

Inclusive criteria: (1) All patients were diagnosed as urinary retention after stroke. (2) The patient's guardian and their family

members were aware of the content of this study and sign an informed consent form. (3) The relevant ethics research committee approved the discussion of this study.

Exclusion criteria: (1) Patients suffering from other major diseases. (2) Patients with severe organ failure. (3) Incomplete information. (4) Individuals with mental disorders and lack of cooperation.

2.2 Methods

The control group used the conventional treatment mode. The medical staff place the indwelling catheter for the patients, record the amount of urine exported by the patients regularly, observe the color of urine, and regularly replace and disinfect the catheter. At the same time, routine acupuncture treatment is performed on patients. During the treatment process, acupoints such as Guanyuan point, Shimen point, Yanglingquan point, Zhongji point, Shuidao point, and Sanyinjiaopoint are selected. Before treatment, the patient is allowed to empty their urine. The methods of lifting, inserting, supplementing, and leveling are used during the acupuncture process. The duration of needle retention is 30-40 minutes, and needles are applied every 10 minutes.

The observation group was treated with needle warming through moxibustion on the basis of conventional treatment. Patients were informed of precautions and were reminded to empty urine and stool before applying the needle. The acupuncture point selection technique is the same as that of the control group. And the moxa stick was put on the needle handle with a length of about 2 cm, and was ignited. The temperature and contact distance can be appropriately adjusted according to the patient's tolerance to the moxa stick. After warming the acupuncture and moxibustion for three times, the needle was pulled out and the needle was applied once a day.

2.3 Observation Indicators

The residual amount of bladder urine before and after treatment, the total effective rate of

urinary retention treatment after stroke and the improvement of patients' quality of life were compared between the two groups. The residual amount of bladder urine before and after treatment is observed by observing the patient's first urination time and the residual amount of bladder urine before and after treatment. The total effective rate of urinary retention treatment after stroke can be divided into three types, namely recovery, improvement and ineffectiveness. The total effective rate = (recovery + improvement) / total number of cases * 100%. The improvement of patient's quality of life is evaluated by percentage system with a maximum score of 100^[4].

2.4 Statistical Methods

The data were analyzed by SPSS19.0 statistical software. The total effective rate of urinary retention treatment after stroke was compared with χ^2 and expressed as a rate (%). The improvement of urinary residue and quality of life before and after treatment was compared with t-test, expressed as ($x \pm s$). If $P < 0.05$, it indicated that there was significant and statistically difference between the two groups.

3. Results

3.1 Comparison of Bladder Urine Residue Before and after Treatment Between Patients in Two Groups

In this study, the residual amount of bladder urine in the observation group after treatment was (101.23 ± 4.34) ml, while that in the control group was (127.34 ± 3.23) ml. The first urination time and residual amount of bladder urine after treatment in the observation group were better than those in the control group ($P < 0.05$). The specific data is shown in Table 1.

3.2 Comparison the Total Effective Rate of Urinary Retention Treatment after Stroke Between the Two Groups

In this study, the total effective rate of urinary retention treatment after stroke in the observation group was 92.68% (38/41), and that in the control group was 73.17% (30/41). It can be seen that the total effective rate of urinary

retention treatment after stroke in the control group ($P < 0.05$). The specific data is shown in Table 2.

Table 1. Comparison of Bladder Urine Residue before and after Treatment between Patients in Two Groups ($x \pm s$)

Group	First urination time/min	Residual amount of bladder urine/ml	
		Before treatment	After treatment
Observation group	40.34±5.11	251.21±3.43	101.23±4.34
Control group	67.23±5.21	254.43±4.43	127.34±3.23
T	10.545	2.012	10.564
p	0.001	0.892	0.001

Table 2. Comparison of the Total Effective Rate of Urinary Retention Treatment after Stroke between the Two Groups (%)

Group	Case	Recovery	Improvement	Ineffectiveness	Total effective rate
Observation group	41	16	22	3	92.68% (38)
Control group	41	7	23	11	73.17% (30)
χ^2	-	10.545	2.235	10.593	10.748
p	-	0.001	0.865	0.001	0.001

3.3 Comparison of the Improvement of Patients' Quality of Life Between Two Groups Before and after Treatment

In this study, the quality of life score in the observation group patients after treatment was (90.23 ± 6.67) points, while that in the control

group patients was (78.34 ± 5.67) points. The improvement of patients' quality of life in the observation group after treatment was significantly better than that of the control group ($P < 0.05$). The specific data is shown in Table 3.

Table 3. Comparison of the improvement of patients' quality of life between two groups before and after treatment ($x \pm s$) point

Group	Case	Before treatment	After treatment
Observation group	41	60.23±3.23	90.23±6.67
Control group	41	61.01±2.29	78.34±5.67
t	-	2.872	11.322
p	-	0.812	0.001

4. Discussion

In traditional Chinese medicine, it is believed that patients with urinary retention after stroke belong to the category of retention of urine. The occurrence of urinary retention is mainly related to the imbalance of yin and yang in the viscera and the retrograde movement of blood. When the operation of blood in the meridians of patients is not smooth, it will lead to the disturbance of the bladder, resulting in the inability of patients to remove the accumulated urine in a timely manner. For stroke patients, due to cerebral hemorrhage and cerebral infarction symptoms, it is easy to cause damage to the tissue that controls the bladder detrusor muscle, leading to central nervous system disorder. Even when the bladder is full, it is difficult to react to

the patient's urination reflex center, forming urinary retention [5].

For patients with urinary retention after stroke, bladder function training should be carried out during clinical treatment by placing indwelling catheter and drug treatment. However, long-term use of indwelling catheter treatment will cause some damage to the patient's body, increase the risk of urinary tract infection, and even make the patient have dependence in the treatment, which is not conducive to the rehabilitation of the patient's urination function [6]. In the course of treatment, needle warming through moxibustion has a good effect by introducing traditional Chinese medicine treatment. In this study, needle warming through moxibustion can reduce the residual urine volume of patients and shorten the first urination time of

patients. Urinary retention occurs in patients with urinary retention after stroke when they carry out traditional Chinese medicine defense, which is mainly related to spleen and kidney deficiency, phlegm and blood stasis blocking orifices and other factors. The traditional Chinese medicine mainly focuses on invigorating the spleen and kidney, resolving phlegm and eliminating phlegm, while needle warming through moxibustion just plays an effective role in stimulating acupoints, which can improve the symptoms of urinary retention of patients. In the process of needle warming through moxibustion treatment, the heat generated by moxibustion will be transmitted to the patient's body and related acupoints through the needle, improving the effect of moxibustion. In this study, it is more obvious that the reduction of urinary residue in the bladder, the total effective rate of urinary retention treatment after stroke and the improvement of patients' quality of life are better than conventional treatment.

5. Conclusion

For patients with urinary retention after stroke, warm acupuncture and moxibustion has obvious effect, which can effectively improve the residual amount of bladder urine, shorten the first urination time of patients, improve the treatment efficiency and improve the quality of life of patients. This treatment method is worth promoting and using in traditional Chinese medicine treatment.

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