Clinical Observation on the Efficacy of Traditional Chinese Medicine Nursing Combined with Acupoint Application in Pediatric Bronchial Asthma

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Abstract

Objective To observe the efficacy of introducing a traditional Chinese medicine nursing combined with acupoint plastering intervention protocol in pediatric bronchial asthma patients. Methods Eighty pediatric bronchial asthma cases treated at our hospital from November 2023 to November 2024 were enrolled as study subjects. Using the random number table method, the 80 cases were allocated into two groups, with 40 cases each in the experimental group and the control group. The control group received routine nursing care for pediatric bronchial asthma, while the experimental group received additional acupoint plastering intervention. Various outcome measures after intervention were compared between the two groups. Results The time to resolution of symptoms and signs in the experimental group was shorter than that in the control group, the TCM syndrome score was lower than that in the control group, the quality of life score was higher than that in the control group, and the parental satisfaction rate with nursing care was higher than that in the control group ($P<0.05$). Conclusion Introducing a traditional Chinese medicine nursing combined with acupoint plastering intervention protocol in pediatric bronchial asthma patients can facilitate rapid resolution of symptoms and signs, optimize quality of life, and gain consistent recognition from parents.

Full Text

Preamble

Observation on the Effect of Traditional Chinese Medicine Nursing Combined with Acupoint Application in Children with Bronchial Asthma

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Abstract

Objective: To observe the clinical effects of integrating traditional Chinese medicine (TCM) nursing combined with acupoint application in children with bronchial asthma. **Methods:** A total of 80 pediatric bronchial asthma patients treated at our hospital from November 2023 to November 2024 were selected as study subjects. Using a random number table method, the 80 cases were divided into two groups of 40 each: an experimental group and a control group. The control group received routine nursing care for pediatric bronchial asthma, while the experimental group received additional acupoint application interventions. Post-intervention observation indicators were compared between the two groups. **Results:** The experimental group demonstrated shorter time to symptom resolution, lower TCM syndrome scores, higher quality of life scores, and higher parental nursing satisfaction rates compared to the control group ($P<0.05$). **Conclusion:** The integration of TCM nursing combined with acupoint application in children with bronchial asthma can accelerate symptom resolution, optimize quality of life, and gain consistent parental recognition.

Keywords: Pediatric bronchial asthma; Traditional Chinese medicine nursing; Acupoint application

Introduction

Pediatric bronchial asthma is a common chronic respiratory disease in children, primarily characterized by chest tightness, recurrent cough, dyspnea, and wheezing, with a relatively complex pathogenesis [1]. If diagnosis and treatment are not timely or appropriate, various complications such as chronic bronchitis and respiratory failure may ensue, severely impacting children' s growth, development, and daily quality of life [2]. Therefore, it is necessary to simultaneously address both treatment and nursing care to achieve a comprehensive positive disease control effect [3]. This study attempted to introduce an intervention mechanism combining TCM nursing with acupoint application in children with bronchial asthma, with promising results reported as follows.

Materials and Methods

1.1 Case Selection

Eighty pediatric bronchial asthma patients treated at our hospital from November 2023 to November 2024 were selected as observation samples. Inclusion criteria: confirmed diagnosis of pediatric bronchial asthma and parental informed consent. Exclusion criteria: congenital heart disease, other respiratory diseases, cognitive or mental disorders, hematological diseases, immunological diseases, tuberculosis, hepatitis, acute pneumonia, or refusal to participate. Using a random number table method, the 80 cases were divided into two groups: an experimental group (n=40) with mean disease course of $(6.50\$\pm0.25)days, meanageof(5.51\pm0.44)years, andamale-to-femaleratioof21:19;andacontrolgroup(n=40)withmeandiseasecourseof(6.40\pm0.36)days, meanageof(5.69$ years, and a male-to-female ratio of 22:18. Baseline data comparison between the two groups showed no statistically significant differences (P>0.05), indicating comparability.

1.2 Implementation Methods

The control group received routine nursing care for pediatric bronchial asthma, including medication administration as prescribed, dynamic condition monitoring, health guidance, and psychological support. The experimental group received additional acupoint application interventions as follows:

1.2.1 TCM Nursing Measures

1. **Pediatric Tuina (Massage):** Selected acupoints included Lung Meridian, Spleen Meridian, Zusanli (ST36), Bagua, Feishu (BL13), Pishu (BL20), Sanguan, and Shenshu (BL23). Treatment involved 200-300 repetitions of various techniques including direct pushing, pressing, pushing-transporting, and kneading, followed by five repetitions of spine pinching.
2. **Dietary Nursing:** Guided patients to maintain a light diet, strictly avoiding stimulating and allergenic foods, with lily and white fungus porridge recommended.
3. **Herbal Fumigation:** A decoction containing Danggui (Angelica sinensis), Lianqiao (Forsythia), Baizhu (Atractylodes macrocephala), Huangqi (Astragalus), Banxia (Pinellia), Wuweizi (Schisandra), Yinyanghuo (Epimedium), Cheqiancao (Plantain), Heshouwu (Polygonum multiflorum), Nüzhenzi (Ligustrum lucidum), Yuxingcao (Houttuynia), and Maidong (Ophiopogon) was boiled in a stainless steel container. Steam fumigation therapy was administered for 20-30 minutes once daily.
4. **TCM Directional Drug Permeation Patch:** Patches containing Bingpian (Borneol), Jinyinhua (Honeysuckle), Chaihu (Bupleurum), Bohe (Mint), Jiegeng (Platycodon), Yuxingcao (Houttuynia), Banlangen (Isatis

root), Chuanbei (Fritillaria), and Huangqi (Astragalus) were applied to bilateral Feishu acupoints. After fixing the instrument electrodes to the patches, treatment was initiated with dosage and temperature adjusted according to age and tolerance. Each directional drug permeation treatment lasted 20-30 minutes, with each patch retained for the appropriate duration.

1.2.2 Acupoint Application Nursing Three grams of Asarum, six grams each of Kansui and Ephedra, and ten grams each of Corydalis and White mustard seed were ground into fine powder and mixed with Vaseline to create an ointment. This was applied to Dazhui (GV14), Danzhong (CV17), Feishu (BL13), and Shenshu (BL23) acupoints, with bilateral points treated simultaneously. Application was performed once every other day for 60-120 minutes each time, totaling three applications.

1.3 Evaluation Methods

1. **Time to Symptom Resolution:** Including resolution time for dyspnea, cough, wheezing, and wheezing sounds.
2. **TCM Syndrome Score:** Severity of main symptoms including cough, wheezing, and wheezing sounds was scored from 0 (asymptomatic) to 3 (severe symptoms).
3. **Quality of Life:** Assessed using the Generic Quality of Life Inventory-74 (GQOLI-74), covering psychological function, physical function, and living status with scores ranging from 0-100, where higher scores indicate better quality of life.
4. **Nursing Satisfaction Rate:** Evaluated using a self-designed parental nursing satisfaction assessment scale (0-10 points). Scores >8 indicated satisfaction. Nursing satisfaction rates were compared between groups.

1.4 Statistical Methods

SPSS 23.0 statistical software was used for data analysis. Measurement data were expressed as ($x \pm s$). Comparisons of symptom resolution time, TCM syndrome scores, and quality of life between groups were performed using t-tests. Parental nursing satisfaction rates were compared using ^{2} tests. $P<0.05$ was considered statistically significant.

Results

2.1 Symptom Resolution Time

The experimental group demonstrated significantly shorter time to symptom resolution compared to the control group ($P<0.05$) .

2.2 TCM Syndrome Scores

The experimental group showed significantly lower TCM syndrome scores compared to the control group ($P<0.05$) .

2.3 Quality of Life Scores

The experimental group exhibited significantly higher quality of life scores compared to the control group ($P<0.05$) .

2.4 Parental Nursing Satisfaction Rate

The experimental group achieved significantly higher parental nursing satisfaction rates compared to the control group ($P<0.05$) .

Discussion

Pediatric bronchial asthma is characterized by challenging treatment, prolonged course, and high recurrence rates [4]. After onset, children suffer from varying degrees of distress from wheezing, shortness of breath, and cough, with severe negative impacts on both physical and mental health and quality of life. While anti-inflammatory and bronchodilator medications in Western medicine have certain positive disease control effects, long-term pharmacotherapy carries high risks of adverse reactions in children. Additionally, parents often harbor concerns about the potential negative effects of antibiotics and hormonal medications on growth and development, resulting in limited compliance with Western medical treatment and consequently restricted rehabilitation outcomes. Therefore, for pediatric bronchial asthma cases, attention must be paid not only to treatment efficacy but also to nursing approaches and quality during the disease course [5]. In TCM theory, pediatric bronchial asthma falls under the category of "wheezing syndrome," with main pathogenic mechanisms including improper diet, excessive fatigue, and emotional imbalance. Treatment should follow the principles of ventilating the lungs, clearing the throat, and regulating qi to expel pathogenic factors.

This study introduced an intervention mechanism combining TCM nursing with acupoint application in children with bronchial asthma. As shown in Tables 1-2, the experimental group demonstrated shorter symptom resolution time and lower TCM syndrome scores compared to the control group ($P<0.05$), indicating that the combined application of TCM nursing and acupoint application facilitates accelerated rehabilitation and improved quality of life. This may be attributed to the fact that acupoint application utilizes specific medications to stimulate acupoints, beneficial for resolving lung dysfunction, restoring immune function, and effectively alleviating airway inflammation and hyperresponsiveness [6]. The acupoint formula in this study included White mustard seed, Corydalis, Ephedra, Kansui, and Asarum. White mustard seed warms the lungs, resolves phlegm, and unblocks collaterals, effectively alleviating cold phlegm

wheezing and cough [7]. Corydalis and Ephedra promote qi and blood circulation and relieve wheezing by ventilating the lungs, while Kansui and Asarum eliminate phlegm and open orifices to dispel wind [8]. Concurrently, this study incorporated various TCM nursing techniques that utilize multiple meridian stimulation methods including pushing, kneading, and pinching to help children with bronchial asthma obtain benefits of warming and tonifying qi-blood, regulating the lungs and spleen [9]. Tuina techniques reduce respiratory mucosal edema and control airway hyperresponsiveness and inflammation, while herbal fumigation integrates multiple medicinal effects to achieve symptomatic treatment of respiratory diseases [10].

As demonstrated in Tables 3-4, the experimental group showed higher quality of life scores and parental nursing satisfaction rates compared to the control group ($P<0.05$), indicating that the combined application of TCM nursing and acupoint application can effectively improve patients' quality of life and gain acceptance from patients and their families. This approach has been well-received by parents and effectively promotes positive nurse-patient relationships. Thus, TCM nursing combined with acupoint application can exert positive effects on pediatric bronchial asthma from multiple perspectives, with low stimulation and pain potential yet superior disease control efficacy, making it highly acceptable to parents of children with bronchial asthma.

Conclusion

The integration of TCM nursing combined with acupoint application in children with bronchial asthma can accelerate symptom resolution, optimize quality of life, and gain consistent parental recognition and evaluation.

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Note: Figure translations are in progress. See original paper for figures.