Nursing Experience of Electric Plum-Blossom Needle Tapping Method in Treating One Case of Juvenile Myopia (Postprint)

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Abstract

This article summarizes the nursing experience of a pediatric patient with mild myopia treated using electric plum-blossom needle therapy. Based on Traditional Chinese Medicine syndrome differentiation and nursing theory, targeted acupoints were selected for electric plum-blossom needle tapping treatment, combined with dietary and emotional nursing measures, effectively improving the child's vision.

Full Text

Nursing Experience in Treating One Case of Juvenile Myopia with Electric Plum-Blossom Needle Therapy

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Abstract

This paper summarizes and analyzes the clinical efficacy of electric plum-blossom needle tapping therapy in treating a case of juvenile mild myopia. Guided by Traditional Chinese Medicine (TCM) syndrome differentiation and nursing theory, electric plum-blossom needle tapping was adopted at targeted acupoints. Nutritional support and psychological care interventions were implemented during treatment, effectively improving the patient's vision.

Keywords: plum-blossom needle; youth; myopia; Traditional Chinese Medicine nursing; nursing by syndrome differentiation

Introduction

Myopia is a refractive condition in which parallel light rays from external objects enter the relaxed eye and focus in front of the retina, causing blurred vision. Clinically, it is characterized by clear near vision and blurred distance vision, and is primarily associated with genetic and environmental factors. With the widespread use of electronic devices and inadequate eye hygiene practices, pseudomyopia has shown a clear trend toward younger age groups. In recent years, the prevalence of pseudomyopia among primary school students has been significant, with similarly high rates among middle school and high school students. Pseudomyopia has become a persistent and growing concern for families, hospitals, and society at large. Treatment of pseudomyopia requires not only refractive correction but also attention to complications such as macular holes, macular retinoschisis, or retinal detachment. Thus, the prevention and treatment of juvenile myopia cannot be ignored. Currently, myopia treatment mainly involves vision correction and surgical intervention. In recent years, acupuncture has been increasingly applied in clinical treatment of juvenile myopia due to its unique "treating internal disease externally" approach and notable therapeutic effects. Electric plum-blossom needle therapy is an acupuncture method that uses several short needles to superficially stimulate specific body parts and meridians. This paper summarizes the nursing experience in treating mild myopia patients with this method.

Clinical Case

The patient was an adolescent who presented to our hospital with "blurred vision in both eyes for several months, gradually worsening." The patient had poor appetite, dry stools, clear and profuse urine, peaceful sleep, a pale tongue with thin white coating, and a thin pulse. Family history revealed both parents had high myopia. Western medicine diagnosis: bilateral myopia. TCM diagnosis: bilateral "able to see near but afraid of far," with syndrome differentiation as liver-kidney deficiency. The patient received electric plum-blossom needle tapping therapy, with each session lasting several minutes, for a treatment course of several months. After treatment, the patient's vision improved, with better uncorrected visual acuity in both eyes. The myopia degree did not progress further, bowel movements improved to once daily, and no trauma occurred during treatment.

According to the international standard visual acuity chart, myopia is classified as mild, moderate, or high. The "Guidelines for Appropriate Technology for Myopia Prevention and Control in Children and Adolescents" categorizes myopia based on cycloplegic refraction results into mild, moderate, and high degrees. Based on this classification, the patient was determined to have mild myopia .

The patient presented with anxiety and constipation symptoms, likely related to decreased vision affecting studies and altered bowel habits. Additionally, due to vision decline, the risk of trauma required vigilance.

Nursing Care

1. Nursing Plan

Based on the diagnosis, the following nursing plan was established: - Improve visual acuity and bowel function after treatment - Stabilize the patient's emotional state post-treatment - Prevent trauma due to blurred vision

2. Electric Plum-Blossom Needle Procedure

The patient was placed in supine position. The power switch was adjusted from the "off" position, with intensity set to a level the patient could perceive and tolerate. The therapist held the needle handle between thumb and index finger, vibrating the needle tip up and down using wrist strength. The elastic tapping was applied to acupoints including Sibai (ST2, in the depression about one cun below the pupil), Cuanzhu (BL2, in the depression at the medial end of the eyebrow), Sizhukong (TE23, in the depression at the lateral end of the eyebrow), Shangming (extra point, at the midpoint of the eyebrow arch above the supraorbital margin), and the Bladder Meridian (from Tianzhu to Shenshu). During tapping, the needle tip had to be accurate, stable, and perpendicular to the skin, avoiding oblique, hooking, or picking motions to reduce pain. Initial tapping should be light, gradually increasing intensity until the skin showed mild erythema. After treatment, the power was turned off and the switch returned to the "off" position.

3. General Nursing Care

Patients should develop good eye habits, avoiding reading in bed. Electronic device use should be limited per session, with breaks for eye closure or distance gazing every few minutes to relieve eye fatigue. Reading and studying should be done in adequate, moderate lighting. Reading distance should be maintained greater than several centimeters, with distance gazing after prolonged near work to relieve fatigue. Eye use should be limited to several minutes per session, with patients guided to perform standard eye exercises daily. Physical exercise should be strengthened to build constitution, with daily outdoor activity recommended. Regular lifestyle and adequate sleep are essential, with patients under years old requiring several hours of sleep daily. Regular vision checks are necessary, with prompt medical attention for any abnormalities.

4. Dietary Nursing

The patient's diet should be light, low in salt and oil, avoiding spicy foods. Chrysanthemum tea can be consumed regularly. Foods rich in lutein such as

blueberries, oranges, carrots, and cauliflower should be increased. Adequate protein intake of several grams daily helps control myopia, with increased consumption of meat, fish, eggs, and milk. Vitamin A and B intake should be increased through foods like carrots, amaranth, spinach, leeks, oranges, apricots, and persimmons. Foods beneficial for vision such as black rice, black beans, black sesame, black fungus, and mulberries are recommended, along with strengthened exercise and avoiding late nights. Certain foods that excessively consume vitamin B and reduce calcium should be avoided.

5. Emotional Nursing

Health education for parents is crucial, as treatment success depends on close family cooperation and supervision. The child's physical and psychological condition should be closely observed with regular follow-up. Healthcare providers should listen carefully and patiently to the child's concerns, guiding any negative emotions. Encouragement and supervision help ensure active cooperation with treatment.

Discussion

The main symptom of myopia is blurred distance vision, with symptoms increasing or worsening after onset in children and adolescents. Myopia is related to genetics and near work, with near work being the most dangerous risk factor for myopia development and progression. This includes reading or writing in overly bright or dim light, reading while lying down or tilting the head, and prolonged near work. According to the *Golden Mirror of Medical Orthodoxy: Formulas for Eye Diseases*, "Myopia, clear near vision but blurred distance vision, is due to insufficient sunlight and yin invasion." In TCM organ differentiation theory, the liver stores blood and opens to the eyes. The eyes can see due to blood nourishment, thus prolonged viewing injures blood, causing loss of ocular nourishment and leading to this disease. TCM considers the primary disease location of myopia to be the liver and kidneys, with the main pathomechanism being liver-kidney deficiency and essence-blood failing to ascend and nourish the eyes. Currently, there is no specific medication for myopia, and other non-surgical treatments show individual variation and limited effectiveness. The World Health Organization (WHO) has indicated that acupuncture can effectively treat myopia.

The plum-blossom needle, also called seven-star plum-blossom needle, is a TCM acupuncture method resembling a small hammer with seven small needles at one end of the handle. Tapping utilizes wrist force to rhythmically strike the needle handle, causing the seven-star needle head to land smoothly on the skin. The tapping does not puncture the skin; after treatment, only local skin congestion and redness appear, with patients feeling mild pricking sensation. This case applied electric plum-blossom needle therapy at local acupoints based on syndrome differentiation, selecting Sibai, Cuanzhu, Sizhukong, Shangming, and others. Sibai belongs to the Stomach Meridian and can dispel wind and brighten

the eyes; stimulating Sibai unblocks Yangming meridian qi and blood, gathering qi and blood at the eyes to nourish ocular tissues. Cuanzhu is a Bladder Meridian point that treats five-sense-organ diseases and dispels wind and unblocks collaterals. Sizhukong belongs to the Triple Burner Meridian and is an important point for eye diseases, with functions of dispersing wind-heat. Shangming is an extraordinary point that clears liver fire, brightens eyes, and awakens spirit, with excellent effects for eye protection. Electric plum-blossom needle stimulation of local meridians and acupoints can promote blood circulation around the eyes, improve ocular muscle fatigue and spasm, and regulate the functions of the Zang-fu organs while adjusting qi and blood function. Tapping the Bladder Meridian with electric plum-blossom needle can activate Yang qi throughout the body, enabling qi and blood to ascend to the eyes, which then receive blood nourishment and improve vision. Literature has also reported that electric plum-blossom needle stimulation of periocular acupoints can excite neural cells.

Electric plum-blossom needle therapy shows significant efficacy for pseudomyopia, with strong stimulation, obvious needling sensation, simple operation, safety, wide applicability, good patient acceptance, and high compliance. Clinical application combining electric plum-blossom needle with meridian theory fully utilizes the advantages of TCM holistic theory and syndrome differentiation and treatment, demonstrating remarkable clinical efficacy in preventing and treating juvenile pseudomyopia and warranting promotion. Currently, research on electric plum-blossom needle tapping for pseudomyopia lacks extensive studies on adaptability and effectiveness. Future clinical research should increase sample sizes and observe long-term efficacy to provide more scientific theoretical basis for electric plum-blossom needle treatment of pseudomyopia and better exert its TCM functions.

Conclusion

Electric plum-blossom needle tapping therapy combined with dietary and emotional nursing measures can effectively improve vision in juvenile myopia patients. This approach demonstrates significant clinical efficacy, simple operation, and high safety, making it worthy of clinical promotion.

Conflict of Interest Statement

The authors declare no conflict of interest in this paper.

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