

Clinical study on the pattern of acupuncture point selection for treating juvenile myopia

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Abstract: Objective: To observe the pattern of acupuncture point selection in the treatment of juvenile myopia and provide a reference for acupuncture treatment of juvenile myopia. Methods: An Excel database was established to search all journals included in the Wan fang database from January 1991 to December 2012. Literature on acupuncture treatment for juvenile myopia was selected and analyzed, and 49 articles that met the inclusion criteria were screened. The study summarized and analyzed aspects such as the meridians and specific point properties of the acupoints involved, their distribution, and specific point characteristics. Results: The most frequently used acupoints in the treatment of juvenile myopia were Jingming (BL1), Cuanzhu (BL2), Feng chi (GB20), Tai yang (EX-HN5), Si bai (ST2), Hegu (LI4), and Cheng qi (ST1). The selected meridians were primarily extra meridians and the Bladder meridian of the foot-tai yang. The acupoints were mostly concentrated in the head and face, especially around the eyes. Back-shu points, yuan points, and shu points were the most frequently used specific points. Conclusion: Acupuncture treatment for juvenile myopia is safe and effective, with practitioners often selecting extra meridians and the Bladder meridian of the foot-tai yang, focusing mainly on acupoints around the eyes in the head and face region.

Keywords: Juvenile Myopia, Acupuncture, Point Selection Pattern

1. introduction

Myopia is one of the common diseases among primary and secondary school students, and in recent years, the rate of myopia among these students has remained high, becoming a major issue affecting the healthy growth of adolescents. With the rapid development of society and science, the widespread use of televisions and computers, coupled with the pressure of education and employment, the number of adolescents with myopia has been increasing year by year [1]. The 2010 Beijing Student Physical Fitness Survey showed that the rate of poor vision among college students was 65.66%, which continued to rise compared to 2005, with a particularly significant increase of 12.40% among primary school students [2]. In May 2007, China issued the "Opinions of the Central Committee of the Communist Party of China and the State Council on Strengthening Youth Sports and Enhancing the Physical Fitness of Youth," which listed the prevention and treatment of juvenile myopia as one of the most important current school health tasks [3]. Through more than a decade of clinical practice and basic research both domestically and internationally, it has been confirmed that traditional Chinese acupuncture therapy has a definite effect on juvenile pseudomyopia. To comprehensively understand the clinical acupuncture point selection methods for treating juvenile myopia over the past 20 years, explore the patterns of point selection, and provide a scientifically reliable basis for the clinical treatment of juvenile myopia with acupuncture, the author conducted a statistical analysis of relevant literature included in the Wan fang database from January 1991 to December 2012, and now reports the results as follows.

2. Research methods

2.1. Search strategy

Selected all journals included in the Wan fang database from January 1991 to December 2012 for retrieval. The search keywords were: acupuncture (acupuncture or needle), adolescents, and myopia. A total

of 236 records were retrieved according to the search strategy, and 49 articles were included in the statistical analysis after screening according to the criteria.

2.2. Inclusion criteria for literature

The types of documents include experience summaries, case reports, clinical observations, controlled trials, etc.; the content of the documents is all about acupuncture therapy, with the selected acupoints mainly focusing on the fourteen meridian acupoints and extra meridian points. The treatment methods mainly include acupuncture, electroacupuncture, skin needling, moxibustion, acupoint injection, etc., either as a sole treatment or in combination with other methods for treating juvenile myopia.

2.3. Exclusion criteria for literature

Basic research, retrospective studies, review articles, and duplicate publications; literature treating juvenile myopia with medication or non-acupuncture therapies as the sole treatment methods; literature treating juvenile myopia with Ah Shi points, ear points, or head point lines as the sole treatment methods; literature that does not specify the exact acupoints used.

2.4. Research methods

Establish an Excel database to record literature information. All the acupoints selected in the literature were categorized based on their distribution in the fourteen meridians, their location on the body, and whether they are specific points. After classification, summarization, and organization, data analysis was conducted.

3. Results

3.1. Analysis of the top 20 acupoints selected from each meridian

Out of the 49 eligible articles, a total of 48 acupoints were used, with the top 20 most frequently used acupoints listed in Table 1.

Table 1: Analysis of the Top 20 Most Frequently Used Acupoints from Each Meridian/Frequency

Acupoint	Frequency	Meridian	Acupoint	Frequency	Meridian
Jingming	29	Bladder Meridian	Zusanli	12	Stomach Meridian
Cuan zhu	28	Bladder Meridian	Guang ming	12	Gallbladder Meridian
Feng chi	26	Gallbladder Meridian	Gan shu	12	Bladder Meridian
Tai yang	24	Extra Meridian	Shen shu	11	Bladder Meridian
Si bai	23	Stomach Meridian	Qi hou	10	Extra Meridian
He gu	21	Large Intestine Meridian	Yang bai	8	Gallbladder Meridian
Cheng qi	20	Stomach Meridian	Pi shu	7	Bladder Meridian
Sizhukong	16	Triple Burner Meridian	Yiming	7	Extra Meridian
Yuyao	14	Extra Meridian	Tai xi	6	Kidney Meridian
Tong zi Luo	13	Gallbladder Meridian	Bai hui	6	Governing Vessel

3.2. Analysis of the distribution of acupoints in the fourteen meridians and extra meridians

In the selected meridians, extra meridian points and the Bladder Meridian of the foot-tai yang were predominant. A total of 16 extra meridian points were used, with a frequency of 77 times; the Bladder Meridian of the foot-tai yang had 10 acupoints selected, with a frequency of 94 times; the Gallbladder Meridian of the foot-shao yang, the Stomach Meridian of the foot-yangming, the Triple Burner Meridian of the hand-shao yang, and the Large Intestine Meridian of the hand-yangming had fewer acupoints selected, but individual acupoints were frequently used; the Governing Vessel, Liver Meridian of the foot-jueyin,

Spleen Meridian of the foot-taeyin, Pericardium Meridian of the hand-jueyin, Small Intestine Meridian of the hand-taiyang, and Kidney Meridian of the foot-shao yin were rarely selected; the Conception Vessel, Heart Meridian of the hand-shao yin, and Lung Meridian of the hand-taeyin were not used at all. See Table 2.

Table 2: Analysis of the Distribution of Acupoints in the Fourteen Meridians and Extra Meridians

Meridian	Number of Acupoints (count)	Frequency of Acupoint Use (times)	Affiliated Meridian	Number of Acupoints (count)	Frequency of Acupoint Use (times)
Extra Meridian	16	77	Spleen Meridian of the foot-taeyin	2	8
Bladder Meridian of the foot-taiyang	10	94	Pericardium Meridian of the hand-jueyin	1	4
Gallbladder Meridian of the foot-shaoyang	4	59	Small Intestine Meridian of the hand-taiyang	1	2
Stomach Meridian of the foot-yangming	4	57	Kidney Meridian of the foot-shao yin	1	6
Triple Burner Meridian of the hand-shaoyang	3	18	Conception Vessel	0	0
Large Intestine Meridian of the hand-yangming	2	22	Lung Meridian of the hand-taeyin	0	0
Governing Vessel	2	8	Heart Meridian of the hand-shaoyin	0	0
Liver Meridian of the foot-jueyin	2	5			

3.3. Analysis of the affiliated body parts of selected acupoints

A total of 26 acupoints in the head and face area were selected, with a frequency of 248 times, mainly Jingming 29 times, Cuanzhu 28 times, Fengchi 26 times, Taiyang 24 times, Sibai 23 times, Chengqi 20 times, Sizhukong 16 times, Yu Yao 14 times, Tongziliao 13 times, Qihou 10 times; followed by 10 acupoints in the waist and back area, with a frequency of 40 times, mainly Ganshu 12 times, Shenshu 11 times; 3 acupoints in the lower leg area, with a frequency of 29 times, mainly Guangming and Zusanli, both 12 times; 2 acupoints in the hand area, with a frequency of 22 times, mainly Hegu 21 times; while acupoints in the foot, forearm, upper arm, and thigh areas were relatively less selected, and none were selected in the chest and abdomen area. See Table 3.

Table 3: Analysis of the Affiliated Body Parts of Selected Acupoints

Body Part	Number of Acupoints (count)	Frequency of Acupoint Use (times)	Body Part	Number of Acupoints (count)	Frequency of Acupoint Use (times)
Head and Face	26	248	Hand	2	22
Waist and Back	10	40	Upper Arm	1	1
Lower Leg	3	29	Thigh	1	3
Foot	3	11	Chest and Abdomen	0	0
Forearm	2	6			

Among the acupoints in the head and face area, the periocular acupoints were the most frequently selected, with 19 acupoints and a usage frequency of 197 times, mainly Jingming 29 times, Cuanzhu 28

times, Taiyang 24 times, Sibai 23 times, Chengqi 20 times, Sizhukong 16 times, Yu Yao 14 times, Tongziliao 13 times, Qihou 10 times; followed by 3 acupoints in the lateral head area, with a usage frequency of 10 times; 2 acupoints in the posterior head area, with a usage frequency of 27 times, mainly Fengchi 26 times; and relatively fewer acupoints were selected in the forehead and top of the head areas. See Table 4.

Table 4: Statistical Analysis of Acupoints in the Head and Face Area

Region	Number of Acupoints (count)	Frequency of Acupoint Use (times)	Region	Number of Acupoints (count)	Frequency of Acupoint Use (times)
Periocular	19	197	Forehead and Facial	1	8
Lateral Head	3	10	Top of the Head	1	6
Posterior Head	2	27			

3.4. Analysis of the use of specific acupoints

Back-shu points were the most frequently selected, with 8 acupoints chosen and a total usage frequency of 37 times, including Ganshu 12 times and Shenshu 11 times; followed by yuan points with 3 acupoints selected and a total usage frequency of 31 times, including Hegu 21 times; shu points with 3 acupoints selected and a total usage frequency of 11 times; luo points with 2 acupoints selected and a total usage frequency of 16 times, including Guangming 12 times; he points with 2 acupoints selected and a total usage frequency of 13 times, including Zusanli 12 times; whereas xiahe points, eight extraordinary vessel intersection points, eight meeting points, xi points, and jing points were used relatively less, all with only 1 time, and jing points, ying points, and mu points were not selected at all. See Table 5.

Table 5: Analysis of the Use of Specific Acupoints

Specific Acupoints	Number of Acupoints (points)	Frequency of Use (times)	Specific Acupoints	Number of Acupoints (points)	Frequency of Use (times)
Back Shu Points	8	37	Eight Meeting Points	1	2
Yuan Points	3	31	Qi Points	1	2
Shu Points	3	11	Jing Points	1	1
Luo Points	2	16	Jing Points	0	0
He Points	2	13	Ying Points	0	0
Lower He Points	1	12	Mu Points	0	0
Eight Extraordinary Vessel Intersection Points	1	4			

4. Acupuncture for teen myopia: theory and points

Myopia, characterized by clear vision of nearby objects and blurred vision of distant ones, is categorized as "muhun" in "Huangdi Neijing" (The Yellow Emperor's Classic of Medicine), described as "inability to see distant objects" in "Zhubing Yuan hou Lun" (Treatise on the Origins and Symptoms of Diseases), referred to as "nengjin qu yuan" in "Shenshi Yaohan" (A Precious Mirror for the Preservation of Vision), and called "jinshi" in "Mujing Dacheng" (The Great Compendium of Ophthalmology). In 1995, the industry standard "Zhongyi Bingzheng Zhenduan Liaoxia Biaozhun" (Standards for the Diagnosis and Therapeutic Effects of TCM Diseases) named it "nengjin qu yuan"; in 1997, the national standard "Zhongyi Linchuang Zhiliao Yuci Bingji Bufen" (TCM Clinical Diagnostic and Therapeutic Terminology - Disease Section) defined it as "jinshi".

4.1. Overview of the causes and treatments for adolescent myopia

Myopia is a common and frequent condition among adolescents. Modern medicine believes that the occurrence of myopia is related to genetic factors, but most are caused by incorrect eye habits, such as studying under light that is too strong or too weak, incorrect sitting or pen-holding postures, excessive use of electronic products leading to eye fatigue, and prolonged close-up reading and writing that cause the ciliary muscle to remain tense or spasm for a long time, leading to changes in the curvature of the lens and the formation of accommodative myopia. If the factors causing spasm are not eliminated in time, this state will continue to develop and affect the normal metabolism of ocular tissues, gradually passively elongating the anterior-posterior diameter of the eyeball and becoming true myopia [4]. Western medicine's treatment methods mainly involve wearing glasses and surgery. Wearing glasses can cause many inconveniences, affecting daily life and aesthetics, while myopia surgery has strict limitations and is not suitable for adolescents. Moreover, surgery carries certain risks, and in severe cases, it can lead to blindness [5]. Additionally, surgery may not be able to completely cure refractive errors [6]. However, myopia is not the "incurable disease" that Western medicine claims [7]. Traditional Chinese medicine believes that "the eye can see when it receives blood," and adolescent myopia is mostly due to insufficient endowment, spleen and stomach deficiency, liver and kidney deficiency, lack of essence and blood, which cannot nourish the eyes, coupled with overuse of the eyes, mental exhaustion, and prolonged straining, leading to obstruction of the eye's meridians and loss of nourishment from essence and blood [8]. This is also what "Suwen Xuanming Wuyi" discusses as the five labors that injure: "prolonged viewing injures the blood." Qi and blood are crucial for the eyes; prolonged use of the eyes can deplete qi and blood, naturally affecting vision and leading to the occurrence of myopia. "Shenshi Yaohan Neizhang" also explains the etiology of myopia: "Liver meridian deficiency and kidney meridian disease lead to blurred vision even at a close distance." The liver opens into the eyes, the liver meridian ascends and connects to the "eye system," the liver governs blood storage, and liver blood nourishes the eyes and moistens the tendons, allowing the eyes to see when they receive blood. If one looks for a long time, it can deplete qi and blood, preventing qi and blood from nourishing the eyes, and the divine light in the eyes cannot be emitted far away; the pupil belongs to the kidney, the kidney stores essence, essence generates marrow, and essence and blood have the same origin. Prolonged viewing or overexertion can injure the eyes or kidneys, empty the marrow sea, and the eyes lose nourishment, hence seeing clearly close up but blurred at a distance. Meridians are the channels through which qi and blood flow, and qi and blood are the material basis for the functional activities of the meridians. By stimulating acupoints with acupuncture, one can regulate qi and blood, harmonize the organs, unblock the stagnation of qi and blood in the eye's meridians, accelerate blood circulation in the eyes, improve the nutritional state of the eye muscles, relieve ciliary muscle fatigue and spasm, and restore the ciliary muscle's ability to regulate the lens, achieving a balance of yin and yang, thereby improving naked-eye vision and curing pseudomyopia. Western medicine believes that acupuncture can regulate microcirculation, which is manifested in increased capillary permeability, reduced tension, and increased blood flow. Acupuncture treatment for myopia improves the blood circulation of the ophthalmic artery and internal carotid artery. For patients with accommodative myopia, acupuncture can not only improve vision but also correct refractive errors; for true myopia, although it cannot fundamentally correct refractive errors to solve the problem, it can also improve visual function and prevent complications [9]. By comparing the efficacy of acupuncture with other methods of treating myopia and comparing the long-term efficacy after acupuncture, it can be concluded that acupuncture is the preferred method for treating adolescent myopia.

4.2. Key acupoints and efficacy in acupuncture treatment for adolescent myopia

Acupuncture for adolescent myopia often targets the following key acupoints: Jingming (BL1), Cuan zhu (BL2), Feng chi (GB20), Tai yang (EX-HN5), Si bai (ST2), He gu (LI4), and Cheng qi (ST1). Jingming is located within the orbit and belongs to the Foot-Tai yang Bladder meridian, intersecting five meridians including the Hand-Tai yang, Foot-Yangming, Yangqiao, and Yinqiao. This acupoint is accessible to the posterior orbit near the ophthalmic artery and optic nerve and is commonly used for treating eye diseases. Needling this point directly affects the local area around the eye, stimulating the meridians, conducting meridian qi, regulating meridian qi and blood, accelerating ocular blood circulation, thereby improving the regulatory function of the eye muscles and nerve nutrition, relieving ciliary muscle spasms, eliminating eye

fatigue, and enhancing vision. Cuan zhu, part of the Foot-Tai yang Bladder meridian, has the effect of clearing the meridians and nourishing blood to brighten the eyes. It regulates the eye's meridian qi, accelerates ocular blood circulation, alleviates eye muscle fatigue, relieves ciliary muscle spasms, and improves vision. "The Great Compendium of Acupuncture" records: "Cuan zhu is the main point for the eyes, treating unclear vision, tearing, dizziness, itching, redness, pain in the eyes, and difficulty sleeping due to eyelid twitching." Feng chi belongs to the Foot-Shao yang Gallbladder meridian and is the intersection of the Foot-Shao yang and Yang wei. The Foot-Shao yang Gallbladder meridian originates from the outer canthus of the eye, and the liver and gallbladder are internally and externally related. Needling Feng chi can promote the flow of Shao yang meridian qi, regulate the liver and gallbladder meridian qi, and nourish blood to brighten the eyes. Scholars have used a reflective volume pulse meter to observe the dynamic impact of needling Feng chi on the subcutaneous circulation around the orbit, and the results show that needling Feng chi can improve the circulation around the ciliary muscle, thus being effective for myopia. Tai yang is an extraordinary point outside the meridians, with the function of clearing the liver, nourishing blood, and brightening the eyes. Tai yang is located in the temporal region, about one finger width back from the depression between the end of the eyebrow and the outer canthus. Below Tai yang, there are branches of the zygomatic nerve, temporal and zygomatic branches of the facial nerve, and the temporal nerve distribution. Needling this point can transmit the stimulation signal through sensory nerves to the central nervous system, inhibit the function of the visual lower center, reduce the excitability of the ciliary ganglion (parasympathetic nerve), or increase the excitability of the sympathetic nerve, thereby regulating the muscles around the eye through the oculomotor nerve and trochlear nerve, reducing the refractive power of the cornea, lowering the excitability of the ciliary muscle, decreasing tension, relieving spasms, thinning the lens, and thus allowing the object image to fall exactly on the retina. This reflexive regulation can improve refractive errors. Si bai is a point for brightening the eyes, belonging to the Foot-Yangming Stomach meridian, located around the eye, directly below the pupil, in the depression of the infraorbital foramen. Below Si bai, there are branches of the maxillary nerve, infraorbital nerve, and zygomatic branch of the facial nerve, and fibers of the lower part of the orbicularis oculi muscle, which can regulate the eye's qi and blood, soothe the liver and gallbladder, expel wind, and brighten the eyes. It is mainly used for treating eye diseases and is an effective point for these conditions. Hegu is the source point of the Hand-Yangming Large Intestine meridian. The Yang Ming meridian is rich in qi and blood, and this point is adept at promoting qi and blood circulation, nourishing blood to brighten the eyes, and treating various diseases of the head and face. It can regulate qi and blood circulation, improve eye blood circulation, nourish the essence and blood of the eye system, and nourish the eye's meridians and tendons. In combination with points around the eye, it allows the meridians to be unblocked, the tendons to be nourished, and the eyes to be bright. Cheng qi belongs to the Foot-Yangming Stomach meridian and is the intersection of the Foot-Yangming Stomach meridian, Yangqiao, and Ren meridians. It mainly treats eye diseases and is an effective point for these conditions. Located around the orbit, directly below the pupil, in the orbicularis oculi muscle, with the deep orbit containing the inferior rectus and inferior oblique muscles, and branches of the infraorbital nerve and the oculomotor nerve's inferior branch. It regulates the eye and meridian qi and blood, accelerates ocular blood circulation, and relieves ciliary muscle spasms. Together, these points regulate the meridians and collaterals, balance qi and blood, nourish the eyes, and naturally improve poor vision. As stated in "Lingshu·Jiuzhen Shier Yuan": "One wishes to use fine needles to unblock the meridians, regulate the blood and qi, and nurture the convergence of their ebb and flow."

4.3. Acupuncture for teen myopia: meridians and points

In acupuncture treatment for adolescent myopia, the selection of meridians primarily focuses on extrameridian points and the Foot-Tai yang Bladder meridian. Extrameridian points such as Taiyang, Yu Yao, Qiu Hou, and Yi Ming are located around the eyeball. Needling these points can relieve spasms of the ocular blood vessels, ensuring unobstructed lumen and improved blood supply to local nerves and muscles. This alleviates the ischemia and hypoxia caused by vascular spasms, reduces the tension spasms of ocular muscles due to hypoxia, and alters the fatigue state of the ciliary muscle. These effects are beneficial for the relief of asthenopia, regulation of the eye's refractive system, and recovery of visual nerve function, aligning with the traditional Chinese medicine concept that "the eye can see when it receives blood." Moreover, the

therapeutic effects of extrameridian points and empirical points around the eye are superior to those of regular meridian points [11], offering excellent treatment for adolescent myopia. For instance, the kidney is considered the mother of the liver, and since the kidney and bladder are internally and externally related, the Foot-Taiyang Bladder meridian, which runs through the head and face and originates from the eye area's Jingming point, has a direct relationship with the eye. Therefore, points such as Jingming, Cuanzhu, Ganshu, Shenshu, Danshu, Pishu, and Weishu on the Bladder meridian are selected. These points, through their association with the meridian, govern the areas they reach, nourishing qi and blood, and supplementing the liver and kidneys to clarify vision. This approach can both alleviate pseudomyopia and prevent its progression to true myopia.

4.4. Acupoint selection and mechanism in acupuncture treatment for adolescent myopia

In acupuncture treatment for adolescent myopia, the acupoints selected are primarily located in the head and face, with a focus on those surrounding the eyes. These ocular acupoints are characterized by their superficial location, thin and delicate skin, rich blood supply, and dense meridian circulation, making them easily accessible for stimulation [13]. Needling these points directly affects the area around the eyes, allowing the therapeutic effects to reach the site of the condition. This helps to clear the meridians in the eye area, ensuring smooth flow of qi and blood, accelerating blood circulation, improving the nutrition and function of the eye muscles, alleviating visual fatigue, preventing ciliary muscle spasms, and restoring the normal state of the lens. This effectively regulates the eye's refractive system, ensures adequate blood supply to the choroid at the back of the eye, improves retinal function, and allows clear imaging of objects on the retina, gradually enhancing vision. Additionally, stimulating these acupoints sends acupuncture signals through afferent nerves to the entire cerebral cortex, increasing the excitability of the visual cortex. This excitation is then transmitted through the brainstem's descending system to regulate the eye's refractive system, alleviate ciliary muscle spasms, and appropriately adjust refractive tissues such as the lens, vitreous body, and cornea. This enables clear imaging on the retina, thereby improving refractive errors [14].

For acupuncture treatment of adolescent myopia, the most frequently used acupoints are the back-shu points, followed by the yuan and shu points. Traditional Chinese medicine believes that "the twelve meridians connect internally with the viscera and externally with the limbs." The back-shu points are where the qi of the viscera is infusion and gathers, serving as a hub for internal-external connections. "Lingshu·Weiqi" states, "For qi in the abdomen, treat the back-shu points." "Suwen·Changci Jie Lun" says, "Piercing the back affects the viscera, the back-shu points." Zhang Jing yue said, "The five viscera reside in the abdomen, and their meridian qi all emerges from the Foot-Tai yang meridian, which are the back-shu points of the five viscera." This shows that back-shu points are closely related to the viscera, and needling these points can directly adjust the strength and weakness of the visceral functions. Modern medical research has found that the distribution pattern of back-shu points roughly coincides with the segmental distribution characteristics of the spinal nerves. The location of these points is often the body surface reaction area for internal diseases. Treatment involves needling the somatic sensory nerve endings and sympathetic nerve endings in this area, which, through neural reflexes, acts on the corresponding segmental autonomic nerve centers in the spinal cord, thereby adjusting the corresponding visceral functions. Since the five senses are associated with the viscera, back-shu points can not only treat diseases of the corresponding viscera but also diseases of the senses related to those viscera. In acupuncture treatment for adolescent myopia, stimulating the back-shu points of the Bladder meridian helps to coordinate the functions of the viscera, especially regulating the liver and kidney functions, nourishing the liver and kidneys, and moistening the eyes. Tai xi is the yuan (shu) point of the Foot-Shao yin Kidney meridian. The liver stores blood, and the kidney stores essence; the liver and kidneys have a common origin, and this point has the effect of nourishing the liver and kidneys and supplementing essence and blood. Hegu is the yuan point of the Hand-Yangming Large Intestine meridian, which is good at treating various diseases of the head and face, has the effect of promoting qi and activating blood circulation, can nourish the essence and blood of the eye system to brighten the eyes; Taichong is the yuan (shu) point of the Foot-Jueyin Liver meridian, which can soothe the liver and unblock the collaterals. Needling Tai chong can immediately increase the blood flow coefficient in the eyes and significantly improve microcirculation.

5. Conclusion

In addition to the appropriate selection of acupoints discussed in this article, the acupuncture technique is also very important. Different acupuncture techniques result in varying stimulus intensities and needle effects, which directly affect clinical efficacy. Moreover, the direction, depth, finger strength, and frequency of needle insertion often play a crucial role in the treatment and outcome of diseases [15]. It is also necessary to tailor the treatment to the individual, combining the classification of different people's physiques to determine the number of acupoints, the depth of needle insertion, and the duration of needle retention [16]. Issues beyond these acupoints will not be further elaborated here.

In summary, the acupuncture treatment for adolescent myopia mainly focuses on extrameridian points, the Bladder meridian, and points on the head and face, as well as the waist and back. Among them, Jingming (BL1), Cuan zhu (BL2), Feng chi (GB20), Tai yang (EX-HN5), Si bai (ST2), He gu (LI4), and Cheng qi (ST1) are the most therapeutically significant acupoints.

6. References

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