

Simple Analysis on the Medical and Health Care Function of Tai Chi Chuan

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ABSTRACT

As the treasure of traditional culture in China, Tai Chi Chuan exercise is the crystallization of the wisdom and painstaking efforts of all previous generations with the civilization of the Chinese nation for thousands of years; it contains the principle of combining Yin and Yang and generation-inhibition in five elements with the beautiful appearance of martial arts performances and a good health care function as well. In a word, Tai Chi Chuan has a distinct health care and therapeutic effect on human body with the knowledge of TCM guidance and health; it is a popular exercise from practice to theory, and it has been widely promoted.

Introduction

Therefore, collagen-derived peptides may also play an important role in bone remodeling. However, the role of specific sequences peptide including in collagen-derived peptides on bone metabolism is currently unclear. In this study, we investigated the effect of Gly-Pro-Hyp on the proliferation and differentiation of MC3T3-E1 osteoblastic cells. With the rapid development of society and economy and the improved living standard, human life has also been extended, however, all kinds of diseases are always accompanied by human existence; in order to achieve physical fitness and longevity effect, Tai Chi Chuan exercise shall be effectively integrated with human life to play a greater role in disease prevention and treatment for human service better. As a medical sports method, Tai Chi Chuan exercise not only has greater medical and health care value, but also contains the dialectical connotation of yin and yang, rigid and soft as well as the actual situation in nature; it emphasizes the unity of mind and body as a whole, and the integrity of both inside and outside. Tai Chi

Chuan exercise is not a simple body movement, it emphasizes the supreme role of the spirit, and requires attention to the material contact of the body, so as to attain the realm of the absence of the true and the negative, the yin and yang in the body. It can be seen that Tai Chi Chuan exercise can not only strengthen the body, prolong the life, and regulate yin and yang, but also contribute to intellectual development, enhance people's memory, attention, judgment and reaction, so it has been widely used in the clinical treatment process, becoming the first choice of sports for prevention and treatment of diseases^[1].

1 Effect of Tai Chi Chuan on the Central Nervous System

The nervous system can regulate and govern all organ movements, and human beings mainly depend on the nervous system activity to adapt themselves to the environment. Tai Chi Chuan exercise is good for the central nervous system; if you start practicing Tai Chi Chuan, it is required for people to eliminate distractions

and keep calm and focused, which are good training on the brain.^[2] Meanwhile, in terms of movement, Tai Chi Chuan exercise is a freely flowing style of writing; it is based on the feet, from the legs to the fingers, eyes, hands, waist and foot, and the upper and lower is corresponding and not scattered as a whole; for some complicated movements, good balance ability shall be required for the trainers. Therefore, when the above action is completed, the human brain is always tense, which can indirectly train the central nervous system, activate the function of other systems and strengthen the brain's regulatory function. Thus, for the people who practice Tai Chi Chuan regularly, they often feel very comfortable, refreshed and happy. The improvement of mood has great importance in physiology, and it can improve the patient's mood and then improve the treatment effect; it can be seen that Tai Chi Chuan exercise is good for the central nervous system^[3].

2 Effect of Tai Chi Chuan on the Cardiovascular System

First, Tai Chi Chuan movement can improve the cardiovascular circulation; Tai Chi Chuan exercise mentioned in above paper can improve the central nervous system, and the cardiac blood system connected with the higher nervous system directly is also improved; for example, the hypertension and the high nervous system are closely related, and long-term mental stress may lead to disorders of cardiovascular function, resulting in high blood pressure; it can be seen that the higher nervous activity disorders can contribute to the hypertension diseases to a certain extent. Tai Chi Chuan exercise can improve the central nervous system and have an effect on the cardiovascular disease indirectly.^[4] Secondly, the unique breathing pattern of Tai Chi Chuan is good for the cardiovascular system. The breathing pattern of Tai Chi Chuan can create greater intrathoracic negative pressure, and the gravitational action from the negative pressure can contribute to relaxing thoracic large vessels, which is good for the back flow of venous blood and the output of arterial blood to ease the heart burden. Besides, the sinking of the diaphragm also increases the abdominal pressure, which accelerates the flow of venous blood into the pelvic cavity; in addition, the squeezing action is formed from the sinking of the diaphragm, thus, the blood deposited in the organs is involved in the circulation process. In addition, in Tai Chi Chuan exercise process, the lower limb muscles can also be alternately contracted and relaxed, thus speeding up the flow of venous blood in the lower extremities, to ensure that the heart keeps filling at all times and enhancing the contractile force. It can be seen that regular Tai Chi Chuan exercise can increase your heart beat and improve your cardiovascular system. At last,

Tai Chi Chuan exercise can promote the muscles, ensure the patency of the small blood vessels and capillaries in the muscles, effectively guarantee the supply of nutrients in the muscle tissues, and rapidly excrete the metabolites. And it also improves people's blood circulation system and prevents the cardiovascular diseases^[5].

3 Effect of Tai Chi Chuan on the Respiratory System

In Tai Chi Chuan exercise process, it is necessary to pay more attention to the will and give first place to the breath; since the movement may affect the breath, the breath will strengthen the body-building effect as a movement. The deep, thin, long and well-balanced breath is required for Tai Chi Chuan exercise to improve the vital capacity, keep the lung tissue elasticity and improve the respiratory function, and it is good for the carbon dioxide metabolism. Meanwhile, it can effectively exercise the elasticity of the lungs and increase the expansion and contraction amplitude in the process of stretching the pectoral muscles. In addition, in Tai Chi Chuan exercise process, deep breath is required to intake a large amount of oxygen, strengthen the body's vitality and reduce carbon dioxide retention.^[6]

4 Effect of Tai Chi Chuan on the Skeletal Muscle

In Tai Chi Chuan exercise process, "shrinking bosom and straightening back" is required and the waist is made as a shaft, the muscles of the body joints and all the limbs and bones are required to participate in the activities to fully exercise the spine. Meanwhile, during the exercise, the circular movement is adopted for all Tai Chi Chuan actions, achieves from the front to back shall be coherent, and the whole body is up and down with large or small movements, so as to properly and evenly move the muscles and bones. According to the basic essentials of Tai Chi Chuan, the effect of joint muscles and ligaments on joints shall be reduced and the lacuna joint shall be increased during the exercise, and only in this way can we relax the joints and increase the range of motion to prevent the deformity of the spine.^[7]

5 Effect of Tai Chi Chuan on the Digestive System

As mentioned above, deep, even, slender, long breathing rhythm is required for the Tai Chi Chuan exercise, and the wrist is made as a shaft to move the diaphragm and abdominal wall muscle, to comfort the liver and the

gastrointestinal organs rhythmically, promote the circulation of blood in the liver, and accelerate the gastrointestinal peristalsis to promote the secretion of more digestive juices from the gastrointestinal tract, and thus accelerate the effective absorption of nutrients. So we can see that frequent Tai Chi Chuan exercise can effectively prevent some problems such as dyspepsia and constipation.

6 Effect of Tai Chi Chuan on Mental Health

Tai Chi Chuan exercises not only help to a healthier and stronger body, but also can develop perfect personality and mentality. The ones who frequently practice Tai Chi Chuan always have an open personality. And they are not afraid of frustration and can effectively make a clear distinction between right and wrong. Tai Chi Chuan exercise improves the ability of self-assessment, and enhances self-confidence and self-respect. Tai Chi Chuan has an important impact on college students in mentality. At present, climate of learning of every university is becoming better and better day by day. But the spirit of part of students is in the status of nervousness for a long time because of the influence of academic stress and work stress. Moreover, these students are very easy to burn up. Some psychological problems come into being such as confusion, anxiety, narrow-minded personality, flighty and impatience. If things go on like this, students will appear psychological abnormality phenomena, and even trigger serious consequences of behavior abnormality. College students should be requested to practice Tai Chi Chuan frequently to effectively prevent psychological illness. It emphasizes a pure heart and few desires, and it pursues emotional stability by coherent, balanced and gentle and slow action. It can highly centralize one's mentality. So it can effectively get rid of inner distracting thoughts, remove annoyance and intrapsychic conflict, and then get psychological balance. At present, the majority are the only children. Advantageous family environment makes them generate spoiling mentality. They have weak nerves and have weak self-control ability. They are short of hard-working spirit. Therefore, it is very easy to generate psychological problems when they are facing frustration. Tai Chi Chuan exercise can temper volitional quality constantly. At the same time, it can make students develop courageous and resolute, tenacious and hard-bitten volitional quality. It can help overcome some bad elements such as anxiety, indolence and weak willpower, and then develop the moral trait of tolerant action. At the same time, Tai Chi Chuan can also promote the development of personality, make people more vivacious, and grasp their own requirement and motivation by themselves, and then make their personality tend to mature

in fast speed. In addition, Tai Chi Chuan also explains the idea of self-giving. It starts from development law of objective things, completely considers surrounding elements of the environment and the crowds, and effectively removes people's aloneness. Moreover, people can enrich their knowledge in communication to realize the unity of opposites of yin and yang.^[8]

7 Effect of Tai Chi Chuan on Old People's Body Immunologic Function

Along with the gradual senescence of human body, the number of T lymphocyte is obviously declining. The activity of B lymphocyte that makes antibody is obviously reducing. Also the number of thymosin to adjust immune activity in thymus is apparently reducing. However, all of these changes of human body can make old people's immunologic function decline step by step. So they are easy to contract a disease, and it needs a long time to recover. At the same time, senescence makes recognition capability and scavenging activity of body for cancer cells decline, which increases cancer risk. But Tai Chi Chuan can effectively promote old people's immunologic function. The important safeguard of human body that defends malignant bacteria is humoral immune system. Keeping immunologic function in normal can effectively remove the bad cells in people's body, and then improve immunologic function.

8 Effect of Tai Chi Chuan on Confronting Senescence

Some function of the crowd who is lack of physical exercise can decline on varying degree, mainly on molecule, cell, organ and system and so on. While physical exercise can delay the declination of part physiology function during senescence. Free radical is the most popular maturing theory in the medical field at present. It believes if people intake more heat, the free radical produced by metabolism can attack cells and make them damage. If it goes like this in a long time, cells cannot repair and then aging problem will appear. So we can see from it that absorbing overmuch nutrition can speed up senescence. The ability of body to manufacture antioxidant enzyme will decline step by step after middle age. Harm of active oxygen will appear little by little. So over-dose physical exercise will also speed up senescence. It is mainly the fact that active oxygen free radical produced by vigorous exercise cannot neutralize lipid peroxide, which influences body's micro-circulation, and then raises blood pressure. Antioxidant enzyme can remove free radical in general condition. But when body's antioxidant declines, free radical can damage tissue and

organ, and even cause gene mutation.^[9] So people should choose suitable and effective exercising way to guarantee the middle ages to keep abundant energy from beginning to end, relieve mental stress, promote work efficiency and delay senescence. Action of Tai Chi Chuan is soft and calm, and body's heart rate can keep between 120 to 160 when people practice it. It belongs to aerobic exercise. It cannot produce active oxygen free radical and it delays the senescence of cells. Thus it is a better sport event in healthcare function. At the same time, along with the increasing of age, both people's memory and the working speed of brain information decline obviously. The neural function declines, so as their attention. While Tai Chi Chuan can also delay the declination of memory and attention, which can promote the working speed of brain information, enhance the self-control ability and improve stability of system operation^[10].

9 Conclusion

Tai Chi Chuan is a kind of physical exercise suitable for physiology. It has good impact on central nervous system. It can enhance blood circulation, reduce extravasated blood in the body and improve digestion function and metabolism process. It nearly fits the recovery of all kinds of chronic disease. It has good curative effect on neurasthenia, neuralgia, hypertension, heart disease, intestinal tract disease, liver disease, kidney disease, lumbar muscle degeneration, rheumatism in the legs, arthritis and diabetes and so on. It is a kind of healthy physical exercise suitable for both the young and the old. Tai Chi Chuan conforms to people's physiological law. It belongs to a gentle and soft sport event. And it has nice health care function. It has nice health care function on the nervous system, cardiovascular system, digestive system and skeletal muscle. Frequent Tai Chi Chuan exercise can unconsciously influence people's temperament, and keep pleasure mood.

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