

Theoretical Study of Osteopathy in Mongolian Medicine

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Abstract

Traditional osteopathy in Mongolian medicine is renowned for its distinctive manual reduction, small splint external fixation, and wine spray massage, earning it the reputation as a shining pearl in Chinese medicine. Traditional osteopaths do not use surgery. Instead, they employ manual reduction, small splint fixation, and wine spray massage to treat fractures, showcasing the distinctive medical techniques of Mongolian medicine. This method can not only achieve therapeutic effects but also avoid scarring and reduce injury, making it a preferred choice. This treatment allows for faster healing of fractures, earlier functional exercise, fewer complications, better functional recovery, lower costs, and simpler operations. According to the research, this technique originated from pain and struggle, survived the test of time, and underwent development until the 19th century when the first generation of descendants, Naren Abo, summarized the traditional Mongolian osteopathic treatment known as the wine spray rectification technique. Nowadays, with the resurgence of naturopathy and traditional medicine, the acknowledgment of this age-old treatment is growing. Therefore, it has become crucial to inherit and promote the corrective methods of osteopathic surgery in Chinese Mongolian medicine.

Keywords

Traditional osteopaths in Mongolian medicine, spray wine rectification, small splint external fixation

1. Historical origin and development of osteopathy in Mongolian medicine

As a long-established intangible cultural heritage of the Mongolian people, Chinese Mongolian osteopathy carries rich historical connotations and unique characteristics and profoundly impacts the medical culture. It is not only a precious treasure of Chinese medical culture, but also a wonderful work in Mongolian traditional medicine [1]. Osteopathy occupies an important position in the theory of Mongolian medicine and is a unique diagnosis and treatment method. Mongolian osteopathy is an indispensable part of the traditional medicine culture of the grassland people. It is not a foreign thing, but the original method of fracture treatment in Mongolia, which has gradually formed through long-term life practice. Originating from ancient societies, osteopathy bears witness to the transition from a hunting economy to a nomadic economy in the long history of the Mongolian people. In herding and hunting, contact with wild animals and livestock, as well as frequent warfare, resulted in frequent injuries such as fractures and dislocations of joints. Therefore, osteopathy [2] in Mongolian medicine has formed a unique traditional medicine in this specific historical background. Through continuous development and improvement, this field has built up a unique theoretical framework and treatment means.

2. Core theories and characteristics of osteopathic treatment of fractures in Mongolian medicine

Mongolian medicine, founded by the Mongolian people, is the crystallization of wisdom from their long-term practice, with a long history and rich experience. In the field of traditional Chinese medicine, Mongolian medicine plays its own unique role. Mongolian is a "horseback" nation. Due to its special survival habits, it has a high incidence of bone injury among nomadic people. Therefore, osteopathy is a very distinctive discipline in Mongolian medicine. In general, its core can be summed up as "three diagnoses, six and nine [3]". The "three diagnoses" are the methods [4] of touching (cutting), seeing (looking) and thinking (asking). "Six" is based on ten techniques, which can be flexibly combined with the use of reduction techniques, massage therapy, splint fixation, diet therapy, drug therapy, functional therapy to carry out treatment [5], and "nine combination" [6]. Among them, "three diagnoses" is the diagnostic method, "six" is the method of fracture treatment, and "nine combination" is the central idea [7] of the osteopathic theory of Mongolian medicine. Zhao Namula et al. found that the Mongolian medicine bonesetting, starting from the holistic view of understanding, achieves the purpose of self-healing, natural reduction, fixation, and healing, including the unique concept and technique of "active reduction-functional healing".

When a fracture occurs [8], the balance of the human body will be disturbed, so the rehabilitation process of a fracture needs to conform to the physical state [9, 10] of "physical and mental unity" and "celestial and human unity".

Spray stroke is a type of instinctive reduction therapy, especially used to treat broken bones. The Mongolian people have long lived on the vast grassland, forming a unique drinking culture. They regard wine as the god of food and the spirit of all things, which is used to celebrate festive events, and also use wine to "break" when encountering difficulties. With the passage of time, people gradually realized the special role [10, 11] of wine in the treatment of fractures.

Manual reduction: Traditional osteopathic surgery in Mongolian medicine has a wealth of long-term clinical practice experience and has special characteristics. In the process of its development, due to the different regions, climates, living habits, fracture causes and types, the methods and tools of the reset also have their own characteristics. The fracture was reduced by hand, fixed with a pressure pad and a small splint, sprayed with wine and massage, combined with symptomatic medication and functional exercise. Manual reduction refers to the comprehensive consideration of the cause of the fracture, the injury site, the fracture situation, and the manual restoration of the fracture. Manual reduction requires the doctor to be skilled, and one reduction is the best. When the fracture is reduced, massage should be gently massage to avoid re-injury during reduction. If the reduction is repeated with brute force and rudeness, the damage of the broken end will increase and the complications will increase.

Splint external fixation: external fixation is the guarantee of fracture reduction effect. It is also a restraint method to prevent the fracture from being displaced. Is a very necessary condition for the regeneration of both ends of the discontinuous bone. Traditional Mongolian osteopaths use small splints for external fixation of fractures, which directly destroys muscles and soft tissues like surgery, so that blood can reach the damaged soft tissues at the largest and fastest speed, and the periosteum at the fracture can be nourished and regenerated, which provides the basis for early functional exercise and rehabilitation. Fixation after reduction is an important step in fracture treatment. After fracture recovery, whether fixation is proper directly affects the healing of fracture. The purpose of fixation is to consolidate the reduction effect, keep the fracture end stable, and accelerate fracture healing. The advantages of wooden splint external fixation are convenient material acquisition, low cost, certain elasticity, pressure resistance, and easy to absorb the surface water of the limb. Select the appropriate wooden splint and pressure pad, properly placed at the correct fracture, and then tie the small splint with a suitable length and three-inch belt that is not easy to break. After the three-inch tape is tied, it can play a leverage role in squeezing the wound surface at three points. Pay special attention to the degree of tightness when tying the inch belt, and adjust the degree of tightness in time according to the swelling of the injured part. Under normal circumstances, the coil can move 0.5 cm from the original to both sides.

Pressure pad placement: In order to better fix the position of the fracture end or prevent re-displacement, select the appropriate pressure pad placement. The press pad is mainly made of soft and elastic materials, such as animal plush, felt, or cotton. According to the fracture situation and displacement direction, different shapes of splints were selected. Pressure pad has square, rectangle, triangle, conical, spherical, trapezoid, etc., the pressure pad is according to the fracture site, shape, and possible displacement direction, but also according to the needs of the size of the pressure, select the position of the pressure pad, select the shape of the pressure pad, can prevent the muscle contraction force and various external forces to re-shift the fracture. The pressure pad should be selected reasonably, and the size and thickness of the pressure pad should be adjusted according to different fractures. If it is too thick or too large,

children are easily to damage the local skin because of the delicate skin, resulting in adverse consequences such as the displacement of the fracture end. On the contrary, the pressure pad is too short or too small, the local pressure is insufficient, and the effect of the pressure pad can not be fully played. Therefore, during the treatment process, the shape, size, and thickness of the pressure pad are required to be appropriate. Small splints and pressure pads are the most important external fixation materials in traditional osteopathic therapy in Mongolian medicine. Its main function is mainly through the restraining effect of the three-inch belt, the leverage effect of the small splint, and the pressure pad effect, to prevent the fracture from shifting, so that the fracture remains relatively stable. The wooden splint conforms to the biomechanical point of view, can be moved at any time, and is beneficial for early functional exercise, so that the limb function recovery and fracture healing process are basically carried out at the same time, with easy fixation, avoiding surgical trauma, reducing the economic burden of patients, relieving patients' pain, fast recovery, safety, and other advantages. It can enable patients to exercise as soon as possible, and effectively prevent joint adhesion, muscle atrophy, slow or non-healing fracture, and other problems. The wood splint does not affect muscle movement after external fixation. The fracture site can move slightly while applying a certain amount of pressure to the fracture. Therefore, it is conducive to the self-repair of fracture. Small splint external fixation does not destroy the blood circulation of the bone, and does not hinder the self-healing of the fracture.

3. Modern research and application of osteopathic surgery in Mongolian medicine

Meng Kebuhe *et al.* mentioned in their research that through unique treatment methods, the miraculous effects of osteopathy in Chinese Mongolian medicine have been continued to this day. It integrates injection stroke manipulation and fracture reduction manipulation to implement fracture reduction operations. According to the concept of rectification technique, the therapeutic model of wine spraying stroke technique and the therapeutic model of fracture reduction technique were established by using modern multidisciplinary theories and methods such as physiological psychology and bone injury mechanics, and it was found that osteopathic rectification technique in Chinese Mongolian medicine is a treatment method that integrates the concepts of individual self-healing and harmonious coexistence with nature. It has the characteristics of structure and function (including physiological and psychological). This method is usually non-invasive, with no shelter, and no sequelae effect as the cornerstone, not only supports the development of the field of fracture reduction but also the direction of the overall, dynamic and functional development of fracture treatment today.

At present, combined with Mongolian osteopathy and 3D printing technology, the distal radius fracture can be accurately reduced, improving the accuracy of anatomic reduction, and effectively reducing the possibility of loss of palmar Angle, ulnar declination, and distal radius height. Moreover, it can improve the wrist joint function of patients in the later stage, reduce pain symptoms, and improve the quality of life of patients, which has good social value and great clinical significance [12].

Mongolian osteopathy has had a profound influence on the world, successfully solved the long-term unsolved problems in the treatment of fractures at home and abroad, and made important contributions to human health. This achievement fills the lack of the history of Mongolian medicine research, contributes new knowledge to international medicine, and has been widely recognized and valued [13] by experts and medical science and technology circles at home and abroad. Especially in recent years, with the improvement of people's living standards, the role of osteopathy in Mongolian medicine has become more and more obvious in the clinical practice of Mongolian medicine [14].

4. Conclusion

Mongolian osteopathy is an important part of Mongolian traditional medicine, which has a unique theoretical and technical system. The history and development process of osteopathy in Mongolian medicine is a process of continuous innovation and improvement, which bears witness to the development and progress of traditional Mongolian medicine. The future development of osteopathy in Mongolian medicine is full of potential, and through continuous inheritance, innovation and development, it will make greater contributions to the cause of human health. Therefore, the scientific research of Mongolian osteopathy should be intensified, and its mechanism of action and treatment principle should be deeply explored, so as to provide a more solid theoretical foundation for clinical application. Through this experimental study, we have a deep understanding of the advantages of combining Mongolian osteopathic surgery with modern medicine. This research not only inherits the essence of ethnomedicine but also innovates treatment methods, integrating ethnomedicine into the current trends.

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