Research on Tennis Athletes' Lumbar Injury and Rehabilitation

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Abstract: The more people take part in professional tennis, the more people take part in professional tennis. Therefore, the staff are concerned about the waist injury of tennis players, and some rehabilitation measures are more effective. It must be carefully studied and analyzed. This paper briefly analyses the waist injury and rehabilitation measures of tennis players, hoping that they can play tennis better and more threatening.

1. The Harm of Tennis Waist Injury

In order to optimize the rehabilitation measures of tennis waist injury, we should first understand the internal situation of lumbar spine injury after tennis, then we can take more targeted rehabilitation measures. Lumbar spine injury in tennis usually occurs in the position of the erector spine muscle. The erector spine muscle is located in the back of the spine and sacrum. It connects with the occipital bone and plays the role of connecting and protecting the body. In addition, all vertebral nerves are attached around the erector spine muscle and can be innervated by the nerves of human joints, so they belong to the cohesion of the whole body. There is also a very important component around the erector spine muscle, the thoracolumbar fascia, which is similar to the material of the erector spine muscle. Lumbar and thoracolumbar fascia were damaged. When facing difficulties, the erector's spinal muscles are most affected. If there is lumbar injury, it will affect the erector spine muscle, and then affect the whole body connection, affect the movement behavior of other parts of the body, and have a negative impact on the future training and competition of athletes.

2. Influencing factors of lumbar injury

Tennis players in professional sports, when some parts of the body are injured, there will inevitably be waist injuries. Partial physical injury is the most common condition in competitive sports. In some countries, sports injury treatment costs account for a large proportion. Professional sports will inevitably suffer physical injury in some place. Local injury is the most common condition in competitive sports. For the treatment of sports injuries, the proportion of funds spent is very high.

(1) Lumbar Spine Injury Caused by Unscientific Sports Model

The possibility of sports injuries caused by unscientific sports patterns increases. But in professional athletes, there are also unscientific sports methods, resulting in athletes injured. Compared with other high-intensity sports, tennis needs to move back and forth, so the amount of exercise is relatively large. From these points of view, tennis needs a more scientific way of sports. If there is an unscientific way of exercise, it is easy to cause lumbar spine injury.

(2) Lumbar Injury Caused by Skillful Movements

Tennis requires more skills. In order to play tennis better, we have to learn more special twisting techniques, including back-and-forth running, instantaneous acceleration and vigorous running in the area. These movements need to stop, jump and wave the arm. Playing a ball and turning around in an instant requires tightening and twisting the muscles of the body in an instant to form a rapid movement change. Of course, these sports will have a great impact on the body, every organ of the

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body, and the most affected part is the waist, because the waist can be connected to all parts of the power transmission, tennis requires more whipping skills. In tennis, if you want to play tennis better, you must learn more special and powerful twisting techniques.

(3) Repeat the same movement

Repetition of the same movement can lead to waist injury and repetition of the same movement. Tennis players inevitably use the same movements in training and competition, and the same movements are often used many times. At this time, the muscles will produce strong impact, expansion and tension in an instant, and the load on a certain part of the muscles will be greatly increased. It can then lead to slow onset of muscle damage at the junction, which is relatively difficult to cure in subsequent rehabilitation treatment and takes the longest time.

3. Classification of Lumbar Spine Injury in Tennis Players

- (1) Acute lumbar spine injury usually occurs in the instantaneous use of suffocation violence, most of which occurs in the course of competition. The main reason is that athletes should suffocate the serve, keep the arch in the back, and stretch the muscles again, then the lumbar spine will be under heavy pressure and the lumbar spine will be suffocated; the other is the negligence of the athletes themselves, so that they can't do it before the competition. With proper preparatory exercises, serious injuries to the waist occur first, and the pain is usually more severe and painful.
- (2) This injury usually occurs in tennis training, long-term tennis training, athletes'physical strength will be reduced, in addition to the usual training, there are larger training hiccups, complete recovery of training, total nutrition intake and hiccups on the body requirements, or the age of athletes is increasing. Day after day, hiccups accumulate, and the final shape is more painful. Lumbar spine injury. This chronic lumbar spine injury is usually characterized by muscle spasm and skull inflammation, similar to acute lumbar spine injury. If timely treatment or rehabilitation training, athletes will also cause serious injury. On the one hand, athletes are under great psychological pressure, on the other hand, the clock will affect the day's technical training. If the chronic lumbar injury is more serious, athletes'tennis career will be over.

4. Analysis of Back Injury of Tennis Players

Based on the analysis of influencing factors and types of tennis players'lumbar injuries, different rehabilitation measures are taken for different types of lumbar injuries. Effective rehabilitation methods should be adopted in the rehabilitation of lumbar spine injury. Firstly, external application or oral administration can eliminate the inflammation of lumbar spine lesions. This method is often referred to as "cause elimination". Secondly, we should solve the problem of poor blood circulation in lumbar spine diseases, analyze the factors affecting lumbar spine injury and the types of lumbar spine injury of tennis players. Different rehabilitation measures should be taken for different types of lumbar spine injuries. To adopt more effective rehabilitation methods for the rehabilitation of lumbar spine injury. This method, also known as "minimally invasive treatment", is to maintain relaxation under the premise of muscle exposure to ultrasound knife or radiation. First, it can be achieved with good results.

(1) Tennis players'lumbar spine injuries are manifested by asphyxiated ultrasound imaging. It can be clearly seen that fascia appears much more in the muscles because of exercise, which forms traces of asphyxiation. You can see that there is a kind of asphyxiated fat paste at the chopping point. Fatty paste nerves are connected with cutaneous nerves, and two nerves are asphyxiated, because the lumbar spine will have a good sense of pain after injury. Therefore, nodules should be removed, fascia should be rubbed and repaired with drugs. Skin nerve separator is used to treat pain. However, since lumbar spondylolisthesis is a multiple lesion, single surgery can only be effective for common symptoms. In addition, we should pay attention to the system, so that we can not strictly control the indications of surgery, not only to carry out rehabilitation treatment, hope that doctors can complete the lumbar spine injury nodule resection, if the system is implemented, it will cause abnormal

posture.

- (2) Through the ultrasonic index, make the radio frequency heating, make the muscle close to the fascia, and relax through heat energy. This method is more effective and safer through the traditional relaxation method. The main process is as follows: Radiofrequency irradiation of muscles and tendons can be divided into the treatment effect of injured sites, the relaxation effect of clamps on corresponding tissues, paralysis of nerves and burns of useless nerves. In this method, the use of medical devices will stimulate nerves, focus on identifying the nature of different tissue damage, and then strangle it to the edge of tenderness, which is conducive to doctors'treatment of asphyxia, to avoid important nervous system. Zhong You used ultrasound treatment, the treatment process is more accurate, avoiding the treatment of microvessels, coupled with less treatment of irritating problems, can ensure athletes to enter the rehabilitation treatment process, with a high therapeutic effect and safety.
- (3) After physical rehabilitation treatment, tennis players need some rehabilitation training to help them better realize their desire for rehabilitation. Hip rest exercise. Body supine, knee bent, right foot! Supporting and asphyxiating on the ground, balancing arms, asphyxiating on both sides of the body, exerting force on the waist, try to raise the buttocks, so that the buttocks and trunk are parallel, forming a straight line. This kind of exercise can make the athlete's large condylar arm, the muscles below the waist to be stretched and contracted. It improves muscle toughness. Long-term exercise can also enhance waist self-protection. Long-term hard knee exercises can also make the knee get some exercise, prevent knee injury, help the knee strengthen its compressive capacity; single leg support. Stand up straight with one foot on the ground for 20 to 30 seconds each time. Complete 3-5 groups per day. This method of rehabilitation needs to be kept in a calm and closed state. At first, the body sways and the center of gravity moves. Therefore, the muscles of the waist and legs should be bent and stretched to keep the body in balance. In order to maintain a calm mind and close your eyes, your body will begin to swing and your center of gravity will decline. The muscles of the waist and legs bend to maintain balance.

5. summary

To sum up, in tennis matches and training process, the waist is often used by tennis players body parts, but also the most vulnerable part. Because of some unscientific sports methods, skilled waist movement and repeated use of the same sports can cause waist injury. After the occurrence of lumbar injury, it causes psychological and physical injury to athletes. This paper focuses on targeted treatment and rehabilitation measures. In order to restore the physical and mental health of tennis, tennis players often use posture in tennis matches and training. At the same time, because of unscientific sports, waist is most vulnerable to injury. Skilled exercise and repeated use of the same exercise can lead to lumbar spine injury. Athletes can cause heart disease after a waist injury! Therefore, similar to the two physical injuries, attention to targeted tennis treatment and rehabilitation measures plays an important role in restoring physical and mental health. It plays an important role in life.

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