

Preliminary Exploration on the Treatment of Patients with Severe Multiple Injuries in Trauma Center with Multidisciplinary Cooperation Mode

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Abstract: Patients with multiple injuries generally have the characteristics of complex injuries, rapid disease progression and sudden onset, especially with the continuous advancement of science and technology. With the continuous development of transportation industry in China, traffic accidents, work injuries, and accidental injuries are the most common multiple injuries at present. In order to effectively improve the treatment efficiency of patients with multiple injuries and improve the treatment environment of patients, this paper mainly explores trauma center with the multidisciplinary cooperation mode to treat patients with severe multiple trauma, and improves the traditional treatment mode to effectively improve the treatment efficiency of patients.

Multiple injuries refer to multiple injuries in the body during an accident, resulting in dysfunction of two or more organs and tissues, multiple skin damage, and serious threats to life and safety. Patients with multiple injuries generally have the characteristics of complex injuries, rapid disease progression and sudden onset, and the condition is concealed. When the internal organs are damaged, they cannot be known only by the naked eye, and further diagnosis is needed to confirm the diagnosis. When treating patients with multiple injuries, the speed of rescue is one of the key elements to prolong the treatment time of patients. However, only through rapid rescue can not enable all patients to be effectively treated, it is necessary to take appropriate first-aid measures for patients. In order to enable patients to receive effective treatment, Deng Peng and other scholars proposes that it is helpful to rescue patients with severe multiple injuries by using trauma center with multidisciplinary cooperation mode ^[1].

1. The traditional treatment mode

The traditional treatment process mainly adopts the method of division of diagnosis and treatment, which is also known as the method of special diagnosis, mainly treated by the doctors in the emergency department. Among them, emergency physicians mainly consist of orthopaedics and surgeons, who perform their duties and make classified diagnosis. When the hospital receives the call, it needs to make a quick judgment, dispatch the relevant medical staff to the scene to treat the patients, make a simple on-site diagnosis and treatment for the patients, and deal with the wounds to prevent the patients from hemorrhage, wound reopening, infection and other phenomena during the transit process. In addition, the patient is given relevant oxygen, cardiopulmonary treatment and ECG monitoring, so that the patient can get effective cardiopulmonary resuscitation. After admission, the traditional treatment process mainly includes emergency medical staff to diagnose and examine patients' life indicators, inquiry about the causes of accidents of patients' family members or accompanying personnel, and take routine first aid measures such as fluid infusion, cardiopulmonary resuscitation, wound dressing. After the emergency doctor judges the patient's

condition and takes corresponding emergency measures, the patient is transferred to the corresponding department for treatment according to the condition. This treatment method is one of the common treatment methods in hospitals at present. The treatment efficiency of patients can be effectively improved through the division of diagnosis and treatment with the participation of specialists. Because of the high medical level of specialists, the treatment efficiency of patients can be effectively ensured. However, the use of division of diagnosis and treatment can easily lead to treatment disjunction, and even some specialists and nurses are working under overload. When there are more patients with multiple injuries, the doctors are understaffed, resulting in patients not being able to receive treatment and first aid for the first time. As a result, the patient's condition is delayed. At the same time, because the patient is involved in multiple injuries, specialists can not take full account of patients, and the phenomenon of missed diagnosis and misdiagnosis may occur easily ^[2].

2. Treatment of trauma center with multidisciplinary cooperation mode

Multidisciplinary cooperation mode is a relatively new treatment mode, which is different from the division of diagnosis and treatment. It is shown that the treatment mode belongs to the integrated treatment mode. It is mainly used in trauma center treatment, especially for patients with multiple injuries, the use of multi-disciplinary cooperation model can effectively improve the treatment efficiency of patients. Multidisciplinary cooperation mode is an effective combination of pre-hospital first aid, in-hospital rescue, intensive care, and post-operative observation. In this treatment system, hospitals should establish a trauma treatment team composed of multiple departments. The team needs to have a doctor of deputy high level or above, and the trauma center should be equipped with facilities such as X-ray bed, electrocardiogram, and B-mode ultrasound in the process of construction, so that patients' condition can be diagnosed in time. In addition, in the process of building a multidisciplinary cooperation mode of diagnosis, by effectively connecting pre-hospital first aid and in-hospital rescue, patients can seamlessly connect pre-hospital first aid with in-hospital rescue after pre-hospital first aid, so that there will be no disconnection in the process of treatment. At the same time, in the process of handover, the pre-hospital emergency medical staff should contact the hospital doctor in advance to inform the doctor of the patient's condition and their clinical symptoms in advance, so that the hospital doctor can grasp the patient's condition at the first time and prepare accordingly to reduce the patient's treatment time and improve the efficiency of patients' rescue ^[3].

When using multidisciplinary cooperation mode to treat patients with multiple injuries, it is necessary to understand the injury situation of the accident, the number of injured people and the injury. The patients' condition is classified according to the principle of "ABCDEF" treatment through pre-hospital first aid, and the injuries of the patients are preliminarily classified, and the on-site situation is transmitted to the trauma center, so that the in-hospital patients can prepare for the coordination of the various departments, and the anesthesiologist and the surgeon can prepare for the rescue.

The use of multidisciplinary cooperation mode for the treatment of patients with multiple injuries is one of the rescue methods often used in large hospitals. This model mainly combines the principle of "golden treatment for one hour" to compress the treatment time of patients, improve the efficiency of patients, and reduces the probability of death of patients, and makes patients get the highest degree of rescue. However, in the process of adopting multidisciplinary cooperation mode, the main problems that need to be solved include the problems of the connection between pre-hospital first aid and in-hospital consultation. When the number of patients is large and the situation is urgent, the dislocation phenomenon is easy to occur, leading to the difficulty of treatment process. In order to ensure the effective implementation of the multidisciplinary cooperation model, it is necessary to maintain communication in the process of consultation, ensure sufficient staffing of medical personnel to prevent staff shortage or waste of resources ^[4-5]. In the daily work process, it is necessary to rationally optimize the scheduling system in conjunction with the daily consultation of the trauma center to ensure that the staffing situation at each time period

can fully meet the needs of actual treatment.

3. Conclusion

To sum up, in the process of treating patients with severe multiple injuries in trauma centers, the main emergency measures include division of treatment and integrated treatment mode. Among them, the integrated treatment mode refers to the multidisciplinary cooperation mode, which can effectively combine pre-emergency treatment, in-hospital rescue, intensive care, and post-operative observation, so that patients can get scientific and reasonable treatment, effectively improving the efficiency of patient rescue, and patients with multiple injuries can be significantly treated.

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