Significance of Emphasizing and Optimizing Fracture Classification in the Teaching of Orthopaedic Trauma

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Abstract: During the current development process of the medical field, orthopaedics has a very rapid development speed. New theoretical knowledge gradually becomes rich and many new surgical methods appear. At the same time, under the influence of the continuously developing internal fixation materials, the new connotation is given to orthopaedics, the ancient discipline. There are many contents and complicated chapters in the period of orthopaedic trauma teaching, and anatomical structure has a strong dimensional character. These structure and distribution can't be fully grasped only by theoretical teaching. In-depth study on the classification of traumatic fracture can achieve a more accurate evaluation of the degree of fracture, so as to make an effective choice of more appropriate treatment means, thus promoting the prognosis of patients to be significantly improved.

1. Introduction

At present, the teaching methods and contents of orthopaedics are facing many difficulties and challenges, requiring to keep learning new theories and technologies, explore new teaching methods, make use of new teaching contents, and effectively adapt to the development of disciplines, so as to fully meet the clinical work needs of medical students [1]. Trauma orthopaedics has a variety of teaching contents and chapters, and its anatomical structure has a strong dimensional character. In order to fully understand and master the structure and distribution, we must strengthen the active exploration of effective teaching methods. Among them, careful study on the classification of traumatic fracture can better evaluate the degree of fracture, and formulate more effective treatment methods, which is conducive to promoting the rapid recovery of patients [2].

2. Analysis of the Main Characteristics of Traumatic Fracture Classification

(1) The classification of traumatic fracture is a recognized and still used classification method. It can reveal the magnitude, direction and mechanism of violent force that leads to this type of fracture according to different fracture types. (2) In the process of fracture classification, it is necessary to follow the order from simple to complex, and it should be related to the injury of blood vessels, nerves and soft tissue around the fracture, which is of great significance to judge the prognosis of patients. (3) In the preoperative evaluation, fracture classification is a very important part. It can prompt the reasonable choice of surgical approach, show the force direction of fracture, and proceed reduction of the force direction through the indication, so as to reasonably select the operation method. At the same time, fracture classification can also accurately evaluate the surgical reduction, and exactly judge the prognosis of patients. (4) A good fracture classification method is simple and easy to operate. Under the influence of new knowledge, new materials and new technologies, a certain classification method can stand the test and show its obvious practical application value, and at the same time, it has certain development space [3].

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3. Current Situation of the Teaching of Traumatic Fracture

At this stage, in view of the actual situation of orthopaedic trauma teaching, there are not very systematic fracture classifications in the undergraduate syllabus. Whether to use the international classification method still needs to be further verified, so that the good classification method widely used at home and abroad cannot be highlighted. It can be seen that in the teaching of fracture and orthopaedics, the attention attached on fracture classification is not enough, and it needs to be improved actively. For example, for the Garden Classification of femoral neck fracture, there are simple and easy operation methods, which can prompt the size of force, actively guide and evaluate the treatment work, and can prompt the prognosis of patients. British Garden first proposed the Garden Classification of femoral neck fracture in 1961. At the same time, the Garden Classification of femoral neck fracture has been widely used in clinical practice, and has played a very significant guiding role in clinical work, while creating great social value. In the teaching of femoral neck fracture and among orthopaedists, it has become an important teaching content and method [4]. So how can we teach the fracture classification well when teaching orthopaedic trauma?

4. Countermeasures to Improve the Teaching of Traumatic Fracture

On the one hand, teachers need to be fully familiar with all kinds of new progress and basic knowledge of traumatic fracture, especially the differences of classification methods of different fracture types, and introduce to students several or one classification methods that have practical clinical value, have been followed up to now, and are recognized at home and abroad. In addition, teachers need to have a full understanding of the relationship between imaging and fracture. On the other hand, multimedia can combine animation, sound, image and teaching materials organically, show rich information in front of students, so that students' image thinking ability can be significantly improved. For example, when teaching the mechanism of fracture and different types of displacement, the teacher needs to show the blood vessels, nerves, muscles and bones of the injured part to the students. At the same time, through the form of animation, the teacher shows in the process of injury, under the interaction of limb gravity, muscle contraction force and external force, how can the broken end of fracture happen displacement in different directions, displaying continuously, vividly, and repeatedly in front of the students, thus making students understand the complex process more deeply, completely, vividly and clearly, and at the same time, it can promote students to form stronger memory. This way can also display the injury of muscle, nerves and blood vessels in the process of end displacement. Multimedia can effectively combine animation, sound, etc. with teaching materials, so that students can get rich information, thus significantly improving their image thinking ability, effectively promoting their space imagination and understanding. During the actual production of courseware, using a single PowerPoint in classroom teaching can’t achieve effective interaction with students, especially in the teaching of orthopaedic trauma. In order to make teaching courseware high quality, we should not just rely on one courseware design platform, but make full use of various software tools. For example, 3DMAX animation design software, Photoshop image processing software and Ulead VideoStudio video processing software can be fully used in order to design ideal buttons, pictures and images, play out the effect of courseware design, and promote the significant progress of the technical content of courseware. In addition, it is also necessary to make full use of media production software such as Director, Founder Author Tool, Authorware, etc. to design high-quality courseware. It is also the main problem to solve urgently at this stage [5-6]. In addition, during the clinical work, we need to collect the relevant materials of traumatic orthopaedics at any time, especially the clinical data of some special diseases. Sound, video, animation, graphics and documents are all necessary, and each material needs to be perfectly clear when it is processed. Our material access mainly depends on relevant cases in the medical record management system and image Pacs system. Relevant research shows that in the process of teaching content of orthopaedic trauma, compared with teachers with poor oral English ability, bilingual teachers with better oral English ability have worse teaching

effect. The reason may be the lack of high-quality courseware. Therefore, due to the close relationship between traumatic orthopaedics and imaging, making high-quality multimedia is a key content, which can overcome the shortcomings of inadequate language communication. It has a more prominent and direct reflection in bilingual teaching [7].

5. Conclusion

In a word, during the teaching of orthopaedic trauma, the content of fracture classification can be set in various teaching environments by using multimedia courseware, which can change the traditional classroom teaching form. This teaching method has very significant advantages, such as being able to do distance teaching, having rich expressions and novel forms. At the same time, it also abandons the shortcomings of traditional medical teaching methods, including flatness, abstractness and dryness, so that it can bring the optimized teaching effect into play, significantly improve students' thinking ability, understanding ability and spatial imagination, and students can fully understand and master the knowledge they have learned, so that their professional knowledge level and comprehensive skill level can be significantly improved, better guiding their clinical practice in the future work.

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