Meet the Professor

Doctor Justin Shu Yang: different types and concerns of orthopedic surgery

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Dr. Justin Shu Yang (Figure 1) is a physician at Kaiser Permanente and also an orthopedic surgeon who practices at the Los Angeles Medical Center. He attended Rice University and received his bachelor’s degree in biomedical engineering. At Rice, he played collegiate soccer and became interested in sports medicine. After graduating, he attended medical school at the Johns Hopkins School of Medicine and then went on to complete a residency in orthopedic surgery at Washington University in St. Louis. He then had an orthopedic sports medicine fellowship at the University of Connecticut, where he helped to care for the NCAA champion men and women’s basketball team, along with the football, hockey, and soccer teams. Dr. Yang was trained in both arthroscopic and open reconstruction techniques for various sports injuries. He specializes in treating injury and instability of the shoulder and knee, and he takes care of not only athletes, but also general people, such as elderly individuals.

The editorial office of *Annals of Joint (AOJ)* was honored to meet Dr. Justin Shu Yang during the 11th Biennial ISAKOS Congress in Shanghai, China. We invited him for an interview and asked him to share his opinions on the differences between non-athletic injury and athletic injury, the injury conditions of athletes and elderly individuals, and also the applications of open surgeries and arthroscopic procedures. At the end of this interview, he told us his concerns about orthopedic surgery.

Interview

Becoming interested in orthopedic surgery

Dr. Yang told us that he played as a goal keeper in collegiate soccer at Rice University. During his second year at Rice, he dislocated his shoulder for the first time. His doctor told him no surgery was needed, but his shoulder kept dislocating every time he reached up and finally got to the point where he could not play soccer anymore. Since then, he has been interested in orthopedic surgery and sports medicine.

The differences between non-athletic injury and athletic injury

Dr. Yang pointed out that a lot of non-athletic injuries can be prevented by doing proper exercises and stretches. On the other hand, athletic injuries are different and are caused by contact sports, intense games, strong hits and so forth. It is harder for athletes, given their profession, to prevent overuse injuries than that of normal people. As a result, it is hard for athletes to fully recover. Dr. Yang took Yao Ming as an example, even though Yao Ming received many surgeries after he injured his foot, Yao Ming did not recover to the same level as before. Athletes expect more from the surgeries than normal people do. They want to be fully recovered, but sometimes they just do not because of the required level of activity. Moreover, Yao Ming is taller than most people and plays NBA. Therefore, the demand of physical strength from his body is always higher than most people. Furthermore, as athletes often play against people who are at the top of the league, they need to give it all out when competing, which hinders injury recovery.
Injury occurred to elderly individuals

About half of Dr. Yang’s patients are young people under 30 and most of them are athletes. The other half age over 50 or even 60. For the elderly, Dr. Yang stressed that their healing factors are different from young people. As people get older, tendons and ligaments get weaker and are harder to heal, resulting in a longer-term recovery. The injury pattern of elderly people is also different from young people. Shoulder instability and dislocation happen more often among young people, especially those under 20. People who are older have more conditions like tendon tears, or arthritis. The treatments are varied for different medical conditions.

The benefits and applications of arthroscopy and open surgery

Dr. Yang’s research focuses on shoulder instability. He said that the benefits of arthroscopy include fast recovery, less pain, less traumas to the muscles and surrounding tissues. Although arthroscopic procedure is often done in shoulder instability treatments, Dr. Yang said that it may not be as reliable as open surgery, such as open Bankart repair. Arthroscopic Bankart has been shown in literatures to have a low recurrence rate, but the difference between open Bankart and arthroscopic Bankart may be significant in different populations.

A lot of surgeons now tend to learn arthroscopy only as it is easier and more common. The consequence is the lack of knowledge and skills in open procedures. However, for certain athletes, open surgery is still necessary, and there are still much room for the improvement of open procedures in sports medicine. Dr. Yang and his colleagues are trying to find out what type of athletes are best suited for open surgery.

Regarding his experience in arthroscopy, Dr. Yang said he did his first arthroscopy during his residency. He thinks that it is like learning to play a new sport which has a significant learning curve. At first, you have no idea how to play, and after several times, it remains difficult. But once you have done it hundreds of times, it becomes much easier.

The concerns of orthopedic surgery in the future

Dr. Yang believes that arthroscopy will continue to play an important role in orthopedic surgery in sport medicine. He has concerns about increasingly lack of open surgical experience in sports medicine training in the United States. For certain open procedures, residents or trainees has neither seen nor practiced them in training. While certainly a surgeon should do the technique that is most comfortable for them, open surgery in some areas can be a valuable option and is becoming a lost art. Dr. Yang also pointed out that the type of surgery performed is not only the surgeon’s decision but also the patient’s. He encourages surgeons to inform their patients the pros and cons, alternatives, complications, the surgeon’s own skill and experience with either techniques, and make the decision with the patient as a team.

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Footnote

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