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Ultrasound-guided regenerative injection therapy for sports injuries

Sports and its respective injuries are becoming common not because of lack of preparation but also because athletes are getting involved with various types of sports that imposes too much strain over the musculoskeletal system. As athletes become more competitive, there is a tendency for anybody involve in sports to train under extreme conditions but at the same time as more competitions are available, the repetitive motions put unnecessary stress to the musculoskeletal system. There are different factors however, that affect sports response to a stress. One of them is age. The younger the athletes are, repetitive strain can injure the growing and developing tendons, muscles and joints. It is likewise true for aging athletes where the cumulative forces have already altered the normal biomechanics of the body. The other factors include the type of sports, the environment, the frequency and intensity of training, gender, and diet. For acute injuries, most physicians agree on the benefits of protective device, rest, ice, cold compress and elevation, although the use of these first aids call for more studies to review whether they still work or not. For physicians who may be assigned in the sidelines to provide first aid to athletes, other than the usual first aid devices, we see a lot of sports physicians who would like to incorporate diagnostic ultrasound machines to enable them to see quite early what type of injury they are treating. Although it has been found out to be useful in making early diagnosis and thus deciding on which interventions to use, recent studies suggest that it takes three days to be able to get to the definite diagnosis. Regardless of the diagnosis, the first aid for any sports injuries are generally designed to prevent further insult to injuries by using the modalities used above, the PRICE principle. Once the diagnosis is established, sports physicians will have to decide as to whether to subject the athletes to conservative treatment and determine the time period for return to play. However, for those with acute traumatic injuries involving tendons, ligaments, joints and to some extent fracture of the bones, surgery has always been the mainstay of treatment. And for good reason. Surgeons are familiar with the amount of work to be done plus the rehabilitation that follows after surgery which may lengthen the days for an athlete to return to sports should that possibility exists. And with the value placed on a certain athlete because of the level of performance, no one would resign that idea in spite of the injury to allow the patient to recover and return to sports. This is where we need to see the need for additional intervention that could possible shorten the length of time for recovery and rehabilitation. Or to some extent to avoid surgery if possible. Regenerative injection therapy is one of the recent modality that even elite athletes have proven to use it and found it to be effective. The use of platelet-rich plasma therapy and stem cell injection therapy is one of the treatment interventions that can naturally help injured tissues recover and heal faster and allow the athletes to return to sports as compared to the more invasive surgical intervention. Over the last five years, we saw some controversies as to its benefits, but recently we have seen from studies how beneficial this intervention is for both acute and traumatic sports injuries that everybody have seen the role of this treatment in sports injuries. Coupled with ultrasound guidance to deliver the treatment where it should be, and at the same time visualizing the pre-treatment status of the injured tissues, integrating this treatment modality among athletes will provide point of care treatment, help athletes recover faster and enable them to return to play.

Biography

Dr. Jeimylo C de Castro is working as a Chair in Department of Physical Medicine in The Medical City, South Luzon, he is Certified in ARDMS (RMSK) - APCA; Diplomate in American Academy and Board of Regenerative Medicine. He is the Member at Society of Diagnostic Medical Sonography, Member of ICRS - International Cartilage Repair Society, Member at American Institute of Ultrasound in Medicine (AIUM), Member at The American Academy of Anti-Aging Medicine (A4M). He has published papers in some National and International Journals.

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