Interview on Sports Imaging
Uruguay / Dr. Julio Alvarez Lorenzo

In Uruguay, radiologists play an active role and participate in the diagnosis of sports injuries, helping clinicians to quickly and accurately determine the most appropriate treatment. But radiologists can also help identify injuries that haven’t been detected by clinicians before, according to Dr. Julio Alvarez Lorenzo.

European Society of Radiology: Sports imaging is the main theme of IDoR 2019. In most countries, this is not a specialty in itself, but a focus within musculoskeletal radiology. In your country, is there a special focus on sports imaging within radiology training or special courses for interested radiologists?

Julio Alvarez Lorenzo: In my country, there are no specific courses or training in sports medicine for radiologists.

ESR: Please describe your regular working environment (hospital, private practice). Does sports-related imaging take up all, most, or only part of your regular work schedule?

JAL: I work in hospitals and private clinics that provide services to patients. I only make MRI reports, and only very few of my patients are related to sports injuries.

ESR: Based on your experience, which sports produce the most injuries that require medical imaging? Have you seen any changes in this regard during your career? What areas/types of injuries provide the greatest challenge to radiologists?

JAL: Football is the most popular sport in Uruguay. Injuries related to this sport – most commonly muscle and joint injuries – require medical imaging most often. Basketball, rugby and long-distance runners are also part of the patients who are commonly examined with imaging modalities. There hasn’t been any significant change in this regard recently. Regarding challenges in sports injuries, clinical diagnosis is very important, as it is quite accurate. Good communication with your colleagues simplifies your work greatly. However, in the case of patients who have a previous surgery, diagnosis of a new injury could provide a challenge to radiologists.

ESR: Please give a detailed overview of the sports injuries with which you are most familiar and their respective modalities.

JAL: I mostly see joint injuries, in the knee (meniscus, cartilage and ligaments), foot (ligaments, Achilles tendon and cartilage) and shoulder (instability) and acute muscle injuries.

ESR: Radiologists are part of a team; for sports imaging this likely consists of surgeons, orthopaedists, cardiologists and/or neurologists. How would you define the role of the radiologist within this team, and how would you describe the cooperation between radiologists, surgeons, and other physicians?

JAL: Radiologists play an active role in the team; we participate in the diagnosis of sports injuries by confirming them or ruling them out. We also help clinicians to quickly and accurately determine the most
appropriate treatment for patients with sports injuries. In other cases, we identify injuries that haven’t been detected by clinicians before. In my case, I cooperate closely with doctors who send patients with sports injuries; we are sometimes in touch by telephone, in particular when patients are professional athletes. In this case, physicians go with the patients to see the results of the studies, to provide important data in the interpretation of the images.

**ESR:** The role of the radiologist in determining diagnoses with sports imaging is obvious; how much involvement is there regarding treatment and follow-up?

**JAL:** Personally, for sports injuries, I usually do follow-up on lesions that present poor evolution even after being properly treated. When they present the expected evolution, they do not usually send the patients for radiological controls.

**ESR:** Radiology is effective in identifying and treating sports-related injuries and diseases, but can it also be used to prevent them? Can the information provided by medical imaging be used to enhance the performance of athletes?

**JAL:** Medical imaging may provide key information to predict possible future injuries. However, whether this information can be used by other colleagues to enhance the performance of athletes or not is beyond my knowledge.

**ESR:** Many elite sports centres use cutting-edge medical imaging equipment and attract talented radiologists to operate it. Are you involved with such centres? How can the knowledge acquired in this setting be used to benefit all patients?

**JAL:** In my country, there aren’t any sports centres with radiology equipment. The professional sports teams directly hire radiologists, who take their own ultrasound equipment to conduct studies in the sports centre’s facilities.

**ESR:** The demand for imaging studies has been rising steadily over the past decades, placing strain on healthcare budgets. Has the demand also increased in sports medicine? What can be done to better justify imaging requests and make the most of available resources?

**JAL:** Uruguay has seen an increase in the demand for imaging studies of sports injuries due to the benefits they bring. It is important to communicate with clinicians and explain the scope and benefits of imaging studies while seeking to optimise resources.

**ESR:** Athletes are more prone to injuries that require medical imaging. How much greater is their risk of developing diseases related to frequent exposure to radiation, and what can be done to limit the negative impacts from overexposure?

**JAL:** While it is true that an athlete could potentially be more exposed to radiation than a healthy person, it is not possible to know how much radiation (absorbed dose) patients receive (athlete or not) and the number of studies required for athletes never reach the minimum dose of radiation that can cause stochastic effects. However, unnecessary exposure and overexposure are always prevented, by following the ALARA (as low as reasonably achievable) principle.

**ESR:** Do you actively practise sports yourself and if yes, does this help you in your daily work as MSK radiologist?

**JAL:** I have an active life; I go to the gym three times a week. I have sustained sports injuries myself and having access to imaging has allowed me to diagnose and treat them effectively, and to heal completely.

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**Dr. Julio Alvarez Lorenzo** is a radiologist at the High Technology Centre, a private health facility in Montevideo. He has been a radiologist since 2009 and has been fully dedicating his time to MSK imaging since 2010.