



Skeletal Radiology: The Year in Review 2018

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The year 2018 saw a number of major changes in the journal. Most significantly, after 13 years as an editor of the journal, including 6 years as editor-in-chief, Dan Rosenthal decided the time was right to step down. Under Dan's leadership, the editors of the journal met earlier in 2018 to change the structure and tenure of the editor positions, instituting time-limited appointments. This new policy is being incorporated into the by-laws of the International Skeletal Society, now specifying that the "...Editors shall serve for a term of nine years, serving sequentially as Vice Editor for Case Reports, Vice Editor, and Editor-in-Chief..." This new policy will ensure a persistent inflow of fresh ideas and new visions for the continued success of the journal.

The departure of Doctor Rosenthal necessitated a search for a new editor, which was completed in the fall of 2018 in accordance with the society by-laws, with the selection of William E. Palmer, as the new vice editor for case reports. Dr. Palmer is a highly respected musculoskeletal radiologist and is well known to all members of the International Skeletal Society as a former president of the society. He officially started this position on January 1, 2019. Thomas Link is now the vice editor and Mark Kransdorf, the editor-in-chief.

In 2018, the journal published 218 articles including 102 scientific articles, 16 review articles, 63 case reports, and 14 test-yourself cases, as well as multiple browser notes, technical reports, letters to the editor, meeting abstracts and meeting

summaries. The scope of the material is overwhelming; however, we thought it would be of interest to address those articles that stimulated the most interest by our readers as measured by their downloads. While one may assume such selection criteria would be biased by the publication date, favoring those published early in the year, that was not the case. Among the top 25 downloaded articles for the year, the greatest number of manuscripts were published in October!

The single most downloaded article was that by Pesquer et al. [1], titled "Multimodality imaging of subacromial impingement syndrome." In this comprehensive review article, the authors highlight the radiographic, MR imaging and sonographic features of subacromial impingement syndrome. Equally important, they also review the pathophysiology and clinical manifestations of the phenomenon.

The second most downloaded manuscript, which has already been cited twice in more recent publications, is the "Ultrasound classification of traumatic distal biceps brachii tendon injuries," by de la Fuente et al. [2]. This article addressed the use of ultrasound as the initial imaging modality in the evaluation of traumatic distal biceps brachii tendon injuries and the correlation of results with MR imaging results and surgery. The authors found that complete tears were identified on both ultrasound and MR imaging with very high sensitivities (0.98 and 0.96 respectively). While less than 20% of surgical patients had high-grade partial tears, the sensitivity for ultrasound remained high in this group, while MR imaging was less sensitive (0.94 and 0.58 respectively).

Another highly downloaded article, also dealing with ultrasound, is "A review of main anatomical and sonographic features of subcutaneous nerve injuries related to orthopedic surgery." This review article by Causeret et al. [3] provides a study of the anatomy of the main subcutaneous nerves damaged during orthopedic surgical procedures and highlights useful anatomic landmarks to help the sonographer identify and follow the nerves when an iatrogenic lesion is suspected.

An additional review article that was highly downloaded and cited is "Shear wave sonoelastography of skeletal muscle:

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basic principles, biomechanical concepts, clinical applications, and future perspectives,” by Creze et al. [4]. This manuscript, which highlights the basic principles of muscle shear wave elastography and muscle biomechanics, presents the main results obtained in healthy and pathologic muscle. One can only speculate as to the clinical acceptance and the future applications of this technology; however, as the authors note, this review “...introduces the basic principles of muscle shear wave elastography, analyzes the factors that can influence measurements and provides an overview of its potential clinical applications in the field of muscular diseases.”

The final sonography manuscript that deserves mention was that by Berko et al. [5], entitled “Incorporation of musculoskeletal ultrasound training into the radiology core curriculum.” This short perspective provides an easy-to-apply technique to design a peer-teacher-based hands-on musculoskeletal ultrasound workshop for radiology residents. As the use of musculoskeletal ultrasound becomes more widely accepted as the initial modality for many clinical applications, such instruction should be considered as an important part of resident training.

“Hand MRI and the Greulich-Pyle atlas in skeletal age estimation in adolescents,” received a great deal of attention. This scientific article by Hojreh et al. [6] evaluated the feasibility of hand MRI in assessment of skeletal age in adolescents using the Greulich-Pyle atlas criteria on a coronal T1-weighted volumetric MR image. The results were promising, with the authors concluding that MR imaging is a feasible alternative for estimating skeletal age in adolescents.

A paper that caught the editors’ attention, as well as that of many readers, was “Scapulothoracic pathology: review of anatomy, pathophysiology, imaging findings, and an approach to management,” by Osias et al. [7]. Scapulothoracic crepitus and similar disorders are uncommon conditions that most of us encounter only infrequently. The article reviews the anatomy of the scapulothoracic articulation, discusses the different etiologies of scapulothoracic crepitus and bursitis, describes their imaging appearances and discusses management, both nonoperative and operative.

With the increasing use and acceptance of quantitative MR techniques in musculoskeletal imaging, one cannot be too surprised to find that one of the most cited as well as downloaded manuscripts of the year is titled “Diffusion weighted imaging demystified: the technique and potential clinical applications for soft tissue imaging,” by Ahlawat and Fayad [8]. Providing a review of imaging techniques and interpretation, this manuscript also highlights clinical applications for a variety of soft tissue disorders including oncology, peripheral neuropathy and muscle disorders.

No yearly review would be complete without some mention of the remarkable cases that we have the pleasure of seeing each month. One of the most frequently downloaded was “Pacianian corpuscles: an explanation for subcutaneous palmar nodules routinely encountered on MR examinations,” by Rhodes et al. [9]. This report presents two patients who underwent surgical exploration of the hand where prominent Pacianian corpuscles were identified on MR imaging and pathology, exquisitely correlating the imaging and pathological features.

Two “test-yourself” cases were also included in the most highly downloaded manuscripts. These both addressed unusual manifestations of common disease processes, and stand as an important reminder of the old adage “uncommon manifestations of common diseases are encountered far more frequently than the common manifestations of uncommon diseases.” These two submissions prove this well. The first is a case of calcific tendinopathy presenting as an intraosseous shoulder mass in the humeral head, titled “Shoulder pain” by Lee and Saifuddin [9, 10]. The second is an uncommon intra-articular variant of osteochondroma of the wrist, more correctly designated dysplasia epiphysealis hemimelica, reported by Lo et al. [11, 12], in the manuscripts titled “A child with painless left wrist swelling.”

The aforementioned articles were selected by the editors from the list of the most commonly downloaded articles selected by you, the journal’s readers. It has been joy to have the opportunity to read them again during the preparation of this summary!

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