

# Mastering Musculoskeletal Interventions: CVIR's Newest Special Issue

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Dear colleagues,

For the general public, MSK may sound like the newest of umpteen spy organizations. But for interventional radiologists (IRs), the musculoskeletal (MSK) system is a fast-growing field of applications of percutaneous techniques. And it is huge! Treatment of degenerative diseases, stabilization of fractures, and ablation of benign and malignant tumors are nowadays achievable with minimally invasive, image-guided procedures. CVIR has recognized the specificity and importance of MSK interventions with the introduction of a dedicated editorial section (that I am honored to lead) and with the creation of a special issue (that you are about to read).

So, what will be included in this MSK issue? Unfortunately, not everything... there are so many topics that choices had to be made. The decision was therefore taken to detail the hottest topics in MSK IR and I sincerely thank the different authors coming from all over the world for their readiness to participate in this special issue!

Vertebroplasty has been performed by IRs since 1984. Since then, the efficacy of vertebroplasty in alleviating the pain related to osteoporotic compression fractures has been brought into question by several randomized studies. This contradicts many other studies and the clinical experience of most of IRs doing this procedure: Many patients would arrive in the IR suite with limited mobility which would be

improved almost immediately by cement injection. How could the literature possibly not “see” this daily evidence? Clark et al. offer a comprehensive analysis of this discordant literature that will hopefully shed some light [1].

Bone stabilization by an IR is not all about cement injection in the spine. Consolidation in extra-spinal areas, notably the pelvic girdle, can also be achieved with a minimally invasive approach. However, the tools must be known; thanks to Chiang et al., the different bone cement and available hardware such as screws will no longer stay secret [2]. Cazzato et al. will then provide a practical guide on when, where, and how to optimally use your arsenal in non-oncological and oncological situations [3].

When writing about interventional oncology, the palliative treatment of painful bone metastases is one of the major indications of thermal ablation. While radiofrequency ablation was the first modality to be applied, cryoablation has progressively taken over, given its advantages. You notably see what you are ablating with imaging and it is the least painful modality of ablation. As the technique is now well described and established, CVIR is happy to present the first systematic review about this indication of cryoablation, written by Rezaei et al. [4] Thermal ablation is also effective in treating benign bone tumors, thereby offering an alternative to more invasive treatments such as open surgery. There are numerous studies demonstrating the efficacy of ablation to treat osteoid osteoma, probably one of the most recognized indications of an IR treatment. Tomasian et al. will go beyond osteoid osteoma and detail other potential benign bone tumors that can be treated by IRs [5]. Whatever the situation, thermal ablation in the MSK system carries a risk of unintended thermal injury to neural structures that cannot be treated. One can just hope for recovery within

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months. IRs should therefore do everything in their power to avoid this complication. Parvinian et al. will demonstrate the tools that can be used to preserve nerves at all costs [6].

Besides steroid injections, platelet-rich plasma is increasingly being used for the management of painful degenerative and overload pathologies and the IR will be familiar with the theory, the technique, and the best indications after reading the review of Aljefri et al. [7]. When these injections fail, there may nowadays be other percutaneous image-guided treatments to be proposed. The use of embolization to treat painful articular diseases, such as knee arthritis, is a relatively new concept that is already supported by clinical data. The rationale, technique, results and clinical examples of embolization will be presented by Little et al. and Okuno et al. [8, 9]. Another technique that has been reported to be effective in treat painful joints is the thermal ablation of articular nerves; this will also be included in this issue thanks to Gonzalez et al. [10]. The choice between the different options is still a matter of debate and many clinical studies are definitely needed in this field...

... and what better place than CVIR to publish the latest from MSK and other IR topics to publish about this topic (and others)?  
Enjoy the read !

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#### Declarations

**Conflict of interest** The author declares that he has no conflict of interest.

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