Role of MR Imaging in Clinical Research Studies

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ABSTRACT

There have been numerous advances in cartilage imaging with magnetic resonance imaging (MRI) over the past several years. However, in the absence of effective treatments for articular cartilage disease, these innovations have had little applicability to clinical practice. Putative new therapies do exist but only in clinical trials aimed
at establishing the efficacy and safety of these therapies before they are released into general use. These trials, therefore, represent the earliest opportunity to develop imaging methods specifically for such therapies and the diseases that they treat. Accordingly, it is the commercial, regulatory, and logistical demands of the clinical trials process, rather than those of clinical practice, that ultimately shape the early evolution of these imaging tools. Understanding this process and its priorities is essential to contributing to this development and to keeping radiology in sync with advances in the rest of medicine. The following article reviews this novel pathway for innovation in medical imaging and reflects on how recent advances in cartilage MRI might fit in.

**KEYWORD**

MR imaging - clinical trials - imaging biomarkers - cartilage integrity