

CHAPTER A22

Shoulder

INTRODUCTION

The second most frequently and widely performed musculoskeletal extremity MRI examination involves the shoulder. Patients presenting with shoulder pain and dysfunction may have many derangements which can potentially coexist and can frequently overlap in clinical presentation. When physical examination is insufficient for diagnosis, or when additional information defining structural lesions is desired to assist the treating physician in planning medical or operative management, MRI can present a comprehensive examination of osseous and soft tissue structures about the shoulder. The two most frequently suspected sources of shoulder derangement involve rotator cuff disease and instability. The standard shoulder MRI protocol should evaluate both of these possibilities because of the very real possibility and frequency of overlap and coexistence of these problems in any given patient. In *UNIT A22.1*, the authors present their standard shoulder MRI examination, written to address possible cuff disease; however, this protocol also presents a very comprehensive look at possible instability lesions as well as other sources of shoulder problems.

MR arthrography of the shoulder has been fairly widely presented in the literature, and has been proposed to increase the sensitivity and accuracy of examiner evaluation of the shoulder MRI exam. This modification of shoulder MRI has not only been reported to improve evaluation of possible instability lesions, but also for cuff undersurface or articular margin partial tears, although not all users or authors believe MR arthrography is always necessary for evaluating these possible lesions. The procedure does have its drawbacks, including the transition to an invasive procedure and necessitating more complex, time-consuming, and possibly disruptive logistics of scheduling between the MR and fluoroscopy suites. Furthermore, patient acceptance may not be universal. However, it is an additional tool for shoulder MRI that all users may find helpful in specific settings. In *UNIT A22.2*, the authors present their modified sequence protocol for MR arthrography, written to address possible instability; however, the resulting examination is not and should not be limited to evaluating this single possible entity.

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