### The Painful Shoulder

**Kurzfassung:** Standard radiographs, ultrasound, CT and MR imaging are essential in the evaluation of shoulder pain. Standard radiographs (ap, axial, and Neer view) are important for the evaluation of shoulder, especially to assess the humeral head position in patients with impingement, to assess acute fractures, calcific tendinitis, and if a bony tumor is encountered. Ultrasound is useful in the evaluation of the rotator cuff and calcific deposits. Ultrasound has limitations in the evaluation of fatty degeneration of the rotator cuff muscles. CT is useful for evaluation of complex fractures, bony defects (bone loss) associated with chronic shoulder instability after initial trauma. CT arthrography provides additionally information in chronic shoulder instability for the cartilage and labrum. CT and CT arthrography are commonly used before shoulder instability surgery (e.g. Latarjet procedure) or joint replacement is performed. MR imaging is the procedure of choice for evaluation of soft tissue injury such as rotator cuff tear. MRI can also detect occult fractures. MR arthrography is recommended particularly to assess cartilage lesions, labrum defects, partial thickness tears, and ligament lesions (e.g. pulley lesions).

**Lernziele:**
1. To know the appropriate use of the various imaging methods of the most common abnormalities in patients with shoulder pain.
2. To demonstrate the most common pathologic findings in the rotator cuff, long biceps tendon, labrum and cartilage.
3. To demonstrate the most common pitfalls in shoulder imaging.