

Ultrasonographic evaluation of rotator cuff lesion

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Abstract

We investigated the reliability of the ultrasonography for diagnosis of rotator cuff tears. We prepared histological sections of forty shoulder joints to match the ultrasound planes, and conducted a comparative study of the two sets of images. In cases of rotator cuff tear, hyalinization and cartilagification of the tear site were detected as hyperechogenic foci. On the contrary, the regions in which tendon fibers were decreased or absent showed sonolucent areas. We calculated the echo level of rotator cuff objectively. The area of abnormal echo level and the other regions located in the same depth of the rotator cuff were defined by ultrasonic equipment. The mean difference in these two echo levels was calculated. The mean difference in patients with rotator cuff tears was larger than that in normal cases. These results indicate that ultrasonography is a useful procedure in many patients with rotator cuff lesions.