Detection and characterization focal hepatic lesions with diffusion-weighted MR imaging

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We have read the interesting article of Kanematsu et al. [1], titled "Detection and characterization of focal hepatic lesions with diffusion-weighted MR imaging: a pictorial review" which was published online July 28, 2012 and in the July 2013 print issue of the journal. The study included important information which was very useful for us. However, we would like to make a few contributions.

In the article, it is mentioned that in Fig. 1 (cited in Kanematsu et al. [1]) lesion in the left liver lobe was not detected with DWI. DWI, in particular, cannot clearly assess lesions in the left lobe of the liver because of motion artifacts revealed by cardiac pulsations. This is not mentioned in the article. We suggest that cardiac triggering should be used to evaluate the diffusion characteristics of a lesion in the left lobe of the liver [2]. Also, in the article, the field strengths of magnetic resonance imagers were not stated, and this may result in misinterpretations.

Diffusion images were presented in the form of negative image, and this was not specified in the figure captions. This situation leads to confusion. In the article, it is mentioned that distinguishing cavernous hemangiomas from hepatocellular carcinomas with DWI is often difficult. However, we do not agree with this idea. In our routine practice, we distinguish cavernous hemangiomas from HCC and metastases by the absence of diffusion restriction of most cavernous hemangiomas. We know that ADC values of some hemangiomas having fibrosis, calcification, and thrombosis may be low [3]. However, it is sometimes difficult to distinguish cystic metastases so that, in such cases, we use contrast enhancement characteristics of the lesions.

References

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