ABSTRACT

Automatic tumor detection and segmentation is main topic for the computer-aided diagnosis of liver tumors in CT images. However, It is a complex work in low-contrast images as the low-level images are too weak to detect. In this project, we propose a new technique for the automatic detection of liver tumors. We alternatively enhance the intensity contrast of CT images by probability density function estimation. To find tumorous regions, we use the expectation maximization/maximization of the posterior marginal. Finally we use shape constraint to reduce noise and identify focal tumors.