

Survey on liver CT image segmentation methods.

ABSTRACT

The segmentation of liver using computed tomography (CT) data has gained a lot of importance in the medical image processing field. In this paper, we present a survey on liver segmentation methods and techniques using CT images, recent methods presented in the literature to obtain liver segmentation are viewed. Generally, liver segmentation methods are divided into two main classes, semi-automatic and fully automatic methods, under each of these two categories, several methods, approaches, related issues and problems will be defined and explained. The evaluation measurements and scoring for the liver segmentation are shown, followed by the comparative study for liver segmentation methods, pros and cons of methods will be accentuated carefully. In this paper, we concluded that automatic liver segmentation using CT images is still an open problem since various weaknesses and drawbacks of the proposed methods can still be addressed.

Keyword: Liver; Segmentation; Computed tomography; Survey; Boundary detection; Thresholding