

Metal artefact correction algorithm based-on DSAT technique for CT images

ABSTRACT

This paper presents a correction algorithm for metal artefacts in CT images using a novel technique known as dual-step adaptive thresholding (DSAT). The proposed artefact correction algorithm was applied to selected artefactual phantom and clinical CT images. The missing projection data due to metal is detected and extracted by double-thresholding technique. The DSAT-based algorithm allows significant reduction of the artefact and preserves most of the anatomical structures in the corrected CT images.

Keyword: Artefact; Computed tomography; Image segmentation