Automatic Segmentation of the Vessel Lumen from 3D CTA Images of Aortic Dissection

ID 69722
Author(s) Kovács, Tamás; Cattin, Philippe; Alkadhi, Hatem; Wildermuth, Simon; Székely, Gábor
Author(s) at UniBasel Cattin, Philippe Claude ;
Year 2006
Title Automatic Segmentation of the Vessel Lumen from 3D CTA Images of Aortic Dissection
Editor(s) Handels, Heinz; Ehrhardt, Jan; Horsch, Alexander; Meinzer, Hans-Peter; Tolxdorff, Thomas
Book title (Conference Proceedings) Bildverarbeitung für die Medizin 2006 : Algorithmen, Systeme, Anwendungen ; Proceedings des Workshops vom 19. - 21. März 2006 in Hamburg
Place of Conference Hamburg
Publisher Spinger
Place of Publication Berlin
Pages 161-165
ISSN/ISBN 978-3-540-32136-1 ; 978-3-540-32137-8
Keywords Computer Vision -> Segmentation -> Aorta
Acute aortic dissection is a life-threatening condition and must be diagnosed and treated promptly. For treatment planning the reliable identification of the true and false lumen is crucial. However, a fully automatic Computer Aided Diagnosing system capable to display the different lumens in an easily comprehensible and timely manner is still not available. In this paper we present the first step towards such a system, namely a method that segments the entire aorta without any user interaction. The method is robust against inhomogeneous distribution of the contrast agent generally seen in dissected aortas, high-density artifacts, and the dissection membrane separating the true and the false lumen.
Series title Informatik akutell
edoc-URL http://edoc.unibas.ch/dok/A6308297
Full Text on edoc No;
Digital Object Identifier DOI 10.1007/3-540-32137-3_33
Document type (ISI) inproceedings