Protoyping a Planning Platform for Patient Specific Thermal Ablation Intervention and a General Overview of the field.

Bachelor of Science Thesis

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Abstract

Thermal ablation as a treatment for tumors has been established continuously over the past years. It offers a complementary treatment to eliminate or shrink tumors in a minimal invasive way with significant lower risk of major complications. Medical imaging device has become indispensable for accomplishing thermal ablation. The first chapter of this thesis gives an overview of image-guided ablation techniques including radiofrequency (RFA), cryotherapy and microwave.

Since thermal ablation is a complex procedure and because of the collaboration of several specialists during the intervention, there is a need for a planning platform which supports the specialists in planning the ablation. Thereby the second chapter discusses the implementation of a thermal ablation software prototype which allows the collaborators to simulate and plan the ablation (RFA and cryotherapy) before the actual intervention on basis of the patient's specific anatomy.

Zusammenfassung

Hier die deutsche Zusammenfassung einfgen

Acknowledgements

Your acknowledgements to...

Introduction

Chapter 1

Thermal Ablation Techniques in Cancer Therapy

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