Application of Generative Adversarial Networks in Medical Imaging

AORTIC DISSECTION
MECHANICS - MODELING - SIMULATION

Short description:

Application of deep learning techniques for augmentation and segmentation of CTA images.

Goal:

Aortic dissection (AD) is a rare disease and it is therefore difficult to obtain multiple CTA scans from the same patient, especially before the formation of the dissection.

Goal of this work would be to use GANs for CTA data augmentation and segmentation, either to simulate the comparison of AD in healthy patients or its removal in early stage cases.

The work will be conducted with the ***Graz Center of Computational Engineering*** (https://gcce.tugraz.at/) and sees the collaboration of medical experts from ***Med Uni Graz*** and ***Stanford School of Medicine*** (USA).

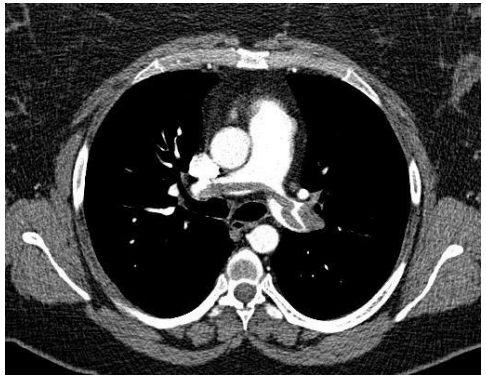
Keywords: Medical Imaging, Deep Learning, GAN, Segmentation, Data Augmentation

Contacts:

Antonio Pepe (antonio.pepe@tugraz.at)

DDr. Jan Egger (egger@tugraz.at)

More information about the project can be found at https://biomechaorta.tugraz.at/



Source: wikipedia.org

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