

Title (en)
METHOD FOR PLANNING TISSUE ABLATION BASED ON DEEP LEARNING

Title (de)
VERFAHREN ZUR PLANUNG VON GEWEBEABLATION BASIEREND AUF TIEFENLERNEN

Title (fr)
MÉTHODE DE PLANIFICATION D'UNE ABLATION DE TISSUS BASÉE SUR L'APPRENTISSAGE PROFOND

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Application
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Abstract (en)
[origin: CA3138208A1] The invention relates to a method (100) and device for planning a surgical procedure aiming to ablate a tissue (32) in an anatomical area of interest (31) of a patient (30). On the basis of a preoperative image (50) of the anatomical area of interest and of a set of planning parameters (P), a simulated image (51) is generated by a neural network that has been previously trained using learning elements corresponding, respectively, to a similar surgical procedure for ablating a tissue in an anatomical area of interest for another patient. Each learning element comprises a preoperative image (50) of the anatomical area of interest of a patient, planning parameters (P) used for the surgical procedure on this patient, and a postoperative image (52) of the anatomical area of interest of this patient after the surgical procedure. An estimated ablation region (34) may be segmented in the simulated image (51) in order to be compared with a segmented region to be treated (33) in the preoperative image (50).

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