



Contribution ID: 233

Type: **Poster Presentation**

Impedance Information from Different Electrode-pairs under four electrodes-Refelecting the irreversible electroporation outcome

Wednesday 6 June 2018 13:30 (1h 30m)

Ablation outcome assessment is critical for confocal therapy. Irreversible electroporation (IRE) is a new emerging tumor treatment in recent years. The variation of the impedance has been proved the ability to reflect the treatment outcome of IRE. However, nowadays the impedance is mostly measured by the treatment electrodes which are used to apply pulses. The information obtained by that is limited to reflect the lethal results. Here, we constructed a four-electrode system. Two of four electrodes in the diagonal are used to apply high voltage pulses, resulting in the IRE in potato tuber. Before and after treatment, the impedance between different electrode-pairs is measured by a commercial impedance analyzer. The impedance from the electrodes which are employed to deliver pulses or not is compared. The results show that the impedance change from the electrodes which are not used to apply pulses have less deviation and give more information on the ablation boundary. This information from the electrodes which are not used to apply pulses that time is significant for the ablation outcome detection, especially in the clinical trials with multi-electrode.

Authors: ZHAO, Yajun (Chongqing University); Prof. YAO, Chenguo (Chongqing University); DONG, shou-long (Chongqing University); LV, Yanpeng; LIU, hongmei (Chongqing University); MA, Jianhao (Chongqing University)

Presenter: ZHAO, Yajun (Chongqing University)

Session Classification: Poster 3 - Power Modulator Systems and Applications