

THE BIOIMPEDANCE APPLICATION

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Abstract

In our days impedance is significant not only in our daily life but also in medical diagnostics. Medical communities have successfully applied it to the non-invasive diagnostics of various conditions of the human body. The intention of developing non-invasive medical diagnostics (NIMD) is to facilitate the early detection, diagnosis, and treatment of diseases. The early diagnosis and treatment of many diseases, including cancers, is critical not only for prolonging and improving the quality of life but also for reducing medical costs. NIMD can be defined as those methods used to examine the human body without invading the integrity of the body. There are lots of NIMD, like ultrasonic diagnostics, infrared diagnostics and etc, but this speech will not discuss with them. The speaker cites his own research experiences in applying impedance in NIMD. Strictly speaking, this speech will introduce the application of bioimpedance for tissue characterization, like cancerous tissue.

Key word: Impedance, NIMD, diagnosis, bioimpedance