New method of detecting various cancers & their biochemical information from rapidly changing part of QRS complex & slowly rising part of T-wave of ECGs was found: Its clinical application for non-invasive screening of cancers & evaluation of any cancer treatments

**Introduction:** The author successfully detected biochemical changes, bacterial and viral infections, and identified the exact location of the infections of different part of the heart by ECGs. Similar results were found at different parts of the brain by ECGs during the last decade. Recently the author found that using ECGs, cancer information can be detected not only on different part of the heart but also in the rest of the body.

**Method:** Various cancers existing in patients were detected from the rapidly changing part of QRS complex as well as the rising part of T-wave of every recorded 12 lead ECGs of the patient by detecting maximum Electro-magnetic Field (EMF) resonance phenomenon between 2 identical molecules with same amount using simple method which received a U.S. patent in 1993. From recorded ECGs, EMF resonance phenomenon between specific cancer microscope tissue slides and ECG were only detected from rapidly changing part of QRS complexes of ECGs and also from a part of slowly rising part of T-waves. Rapidly changing parts of QRS complexes of ECG contain invisible information of specific cancers that exist in the same person. This information is detected at relatively large dV/dt of QRS complex of ECGs. Large dV/dt of QRS complexes is due to the large numbers of ventricular muscle excitation which generate relatively large electrical current and voltage with rest of the ECG, which has very little dV/dt with exception of slowly rising part of T-waves of ECGs which correspond to “the Vulnerable Period of Ventricular Fibrillation” or “Commotio Cordis” in spite of relatively small dV/dt.

**Result:** Using ECGs, the author was able to detect cancers of various organs including lung, esophagus, breast, stomach, colon, uterus, ovary, prostate gland, common bone marrow related malignancies such as Hodgkin's Lymphoma, Non Hodgkin's Lymphoma, Multiple Myeloma as well as Leukemia and even brain tumor such as anaplastic astrocytoma and glioblastoma. In addition the author was also able to find when the patient has more than one different cancer at different parts of the body. Also, most of drugs taken within 10 hours before taking ECG can be detected from rapidly changing part of QRS complex & rising part of T-waves. Among 50 ECGs of various cancer patients examined without knowing diagnosis, 2 patients with different diagnosis were found from ECGs and later diagnosis from ECG was found to be correct. Furthermore, in 3 cancer patients, additional cancers were also detected from ECGs.

**Discussion:** Thus, by comparing the same lead of ECGs before and after any treatment, the therapeutic effect of specific cancers can be evaluated. In addition, if 12 lead ECGs is taken periodically, we can find approximate when cancer information starts appearing in the ECGs. Maximum information from cancer can be found in rapidly changing QRS complex where dV/dt is relatively large. This new concept and method can be applied any recorded ECGs for detection and screening of the cancer. Consequently, ECGs can provide not only information on the heart but also can detect any single cancer or multiple cancers, which exist in the same individual. ECGs cannot only be used to detect cancer but also can be used to reveal undetected cancers or misdiagnosed cancers as well as detection of medication patient is taking.

**Biography**

Yoshiaki Omura received Oncological Residency Training at Cancer Institute of Columbia University & Doctor of Science Degree through research on Pharmacoelectro-Physiology of Single Cardiac Cells in-vivo and in-vitro from Columbia University. He published over 265 original research articles, many chapters and 9 books. He is currently Adjunct Professor of Family & Community Medicine, New York Medical College; Director of Medical Research, Heart Disease Research Foundation, New York; President and Professor of International College of Acupuncture and Electro-Therapeutics, New York; Editor in Chief, Acupuncture & Electro-Therapeutics Research, International Journal of Integrative Medicine, which is indexed by 17 major International Indexing Periodicals. Currently he is also Executive Editor of Integrative Oncology. Formerly, he was also Adjunct Professor or Visiting Professor in Universities in USA, France, Italy, Ukraine, Japan and China.

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