

Perspectives of colorectal cancer screening and early clinical diagnosis

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This lecture will address perspectives of colorectal cancer screening and early clinical diagnosis. Prevention and early diagnosis of CRC through mass screening is important and practical against CRC. Low compliance for current screening tests affects the effectiveness of CRC mass screening. An efficient screening protocol with high compliance is needed for CRC mass screening. Systematic searches were done through Medline and Cochrane Library databases. This review explored the current CRC mass screening protocols to find a more efficient and practical mass screening protocol and problems suitable for further research. Considering the current economic crisis and limited available resources, combination of high risk factor questionnaire and immunochemical fecal occult blood test approach as primary CRC mass screening can currently be used as a risk stratification tool to identify high-risk populations from the community, especially for medically and economically underserved areas/countries before a new better test comes. Using serum pyruvate kinase isoenzyme M2 (M2-PK) as primary and colonoscopy as secondary screening test sounds more efficient with higher compliance than current CRC mass screening protocols. Recommendations for CRC mass screening are suggested for each risk population based on risk stratification. Serum M2-PK- may be developed as a promising CRC primary mass screening test. Sequential combination of serum biomarker such as M2-PK and colonoscopy can be a promising CRC mass screening protocol.

Biography

Hong-Hong (Helen) Zhu obtained her Ph.D. in Epidemiology from Johns Hopkins University Bloomberg School of Public Health, M.Sc. from Clemson University, and MD from Zhejiang University. She has expertise in epidemiologic methods, application of epidemiologic methods in clinical medicine, public health and other health sciences, cancer and other chronic diseases prevention and control, toxicology, food and nutrition, and molecular medicine. She has a unique expertise in translating basic research into animal/tissue research and into clinical and population research and vice versa, interpreting clinical and population research results using biologic mechanisms from basic and animal/tissue research.

High expression of TACSTD2 correlates with poor prognosis in breast cancer

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Currently, prognostic molecular markers for breast cancer are limited. TACSTD2 has been reported to be highly expressed in many types of human epithelial cancers and to be associated with tumor metastasis and a poor prognosis for the patient. The aim of the present investigation was to analyze the TACSTD2 expression at the mRNA and protein level and to assess its prognostic significance in human breast cancer. A one step real-time polymerase chain reaction and immunohistochemistry were used to characterize the expression of TACSTD2 in breast cancer. They showed that the expression of TACSTD2 in breast cancer was higher than that in the tumor-adjacent non-malignant tissues $P=0.001$. The statistical analysis of clinicopathologic characteristics and immunohistochemistry by the Wilcoxon rank sum and the Kruskal-Wallis test showed that the high expression of TACSTD2 in breast cancer was related to lymph node metastasis ($P=0.001$), bone metastasis ($P=0.0387$), and less than 10 years' survival ($P=0.0097$). Kaplan-Meier survival and Cox regression analyses were performed to evaluate the prognosis of breast cancer, and these analyses also showed that a high TACSTD2 expression ($P=0.023$) and bone metastasis ($P=0.001$) were independent prognosis factors. Collectively, our studies demonstrated for the first time that the high expression of TACSTD2 correlates with a poor prognosis in breast cancer.

Biography

Huilin Zhang has completed his master degree at the age of 29 years from Nanjing Medical University. He is the doctor of Nanjing Maternal and Children Care Hospital.

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