

Mycobacteria cervical cancer.

Sayed Mohammad*

Gwangju Institute of Science and Technology (GIST), Gwangju, South Korea

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Editorial Note

Mycobacteria are the causative organisms for diseases such as tuberculosis (TB), leprosy, Buruli ulcer, and pulmonary nontuberculous mycobacterial disease, to name the most important ones. Aim: The aim of this study was to evaluate the effect of garlic extract and isolation of resistance genes to antibiotics in Mycobacterium tuberculosis isolated from patients in Zabol. Method: 50 isolation sputum samples from patients from Sistan and Baluchestan province of Iran were performed using DNA extraction kit and PCR for rpoB-KatG-PncA-embCABrpsL- rrs gene. Garlic extract was prepared using a rotary machine. Finally, the effect of different concentrations of Garlic extract on bacteria was investigated. Results The results of this study showed that Mycobacterium tuberculosis carries the genes of KatG (40%) 12, rrs (76.6%) 23, rpsl (56.6%) 17, PncA (23.3%) 7 and embA1 (33.3%) 10, embA2 (26.6%) 8, embB1 19 (63.3%) and emnB2 12 positive (40%). The results of different concentrations showed that the higher inhibitory concentration, the more bacteria in the concentration of 10 mg / ml were lost. Implications for Practice: The results of this study showed good antimicrobial effects of garlic extract that can be used in treatment of Mycobacterium tuberculosis. Cervical Cancer (CC) has one of the highest mortality rates among women worldwide. Several efforts have been made to identify the genetic susceptibility factors underlying CC development. However, only a few polymorphisms have shown consistency among studies. Most existing prediction approaches assume the underlying gene expression related DEGs and normal data are evenly distributed. In class imbalanced prediction, the general data for one class (majority) far surpassed the training gene expression data of the other class (minority), in which, the minority class is often the more interesting class, which highly reduces the prediction accuracy. To solve this problem, Synthetic Minority Oversampling Technique (SMOTE) is a powerful and widely

used algorithm. In this work, a new Mode and Median Missing Data imputation (MMM-DI) are proposed for missing data imputation. Secondly Feature Weighted SMOTE (FWSMOTE) algorithm creates artificial data based on feature space rather than data space similarities from minority samples. Then selecting a small subset of features from informative Differentially Expressed Genes (DEGs) from gene data and cancer data is solved by the Hilbert-Schmidt Independence Criterion (HSIC) and was partly motivated by Bacterial Foraging Optimization (BFO) algorithm. Finally predicting of cervical cancer disease is performed by Ensemble Support Vector Machine (ESVM) classifier. Hypothesize that biological changes would be reflected in transcriptional changes, which could be identified by comparing the two co-expression networks. The results can help us understand the development of the cervical cancer and guide further experiments about the cervical cancer. The results of this study showed good antimicrobial effects of garlic extract that can be used in treatment of Mycobacterium tuberculosis. Cervical Cancer (CC) has one of the highest mortality rates among women worldwide. 50 isolation sputum samples from patients from Sistan and Baluchestan province of Iran were performed using DNA extraction kit and PCR for rpoB-KatG-PncA-embCABrpsL- rrs gene. Garlic extract was prepared using a rotary machine. Finally, the effect of different concentrations of Garlic extract on bacteria was investigated.

*Correspondence to

Sayed Mohammad

Department of Electrical Engineering and Computer Science

Gwangju Institute of Science and Technology

Gwangju,

South Korea