

12th International Conference on **TRADITIONAL & ALTERNATIVE MEDICINE**

July 25, 2024 | Webinar

Screening of active ingredients from Wendan Decoction in alleviating palmitic acid-induced endothelial cell injury**Muhammad Ijaz***Qilu institute of Technology, China*

Objective: Traditional Chinese medicine (TCM) plays an important role in the treatment of numerous illnesses. As a classic Chinese medicine, Wendan Decoction (WDD) encompasses a marvelous impact on the remedy of hyperlipidemia. It is known that hyperlipidemia leads to cardiovascular injury, therefore anti-vascular endothelial cell injury (AVECI) may be an underlying molecular mechanism of WDD in the cure of hyperlipidemia. However, there is no relevant research on the effect of WDD on vascular endothelial cells and its pharmacodynamic substances. Therefore, the purpose of this study was to investigate the protective effect of WDD on vascular endothelial cells.

Methods: The chemical constituents of WDD were determined by LC-MS/MS technology. The protective effects of 16 batches of WDD on samples from human umbilical vein endothelial cells (HUVECs) were evaluated. Finally, gray relation analysis (GRA) and partial least squares regression (PLSR) were used to analyze the potential correlation between chemical ingredients and AVECI.

Results: The results indicated that WDD had apparent protective effect on endothelial cells, and pharmacological properties in 16 batches of WDD tests were apparently discrepant. The GRA and PLSR showed that trigonelline, liquiritin, hesperidin, hesperetin, scopoletin, morin, quercetin, isoliquiritigenin, liquiritigenin and formononetin may be the active ingredients of AVECI in WDD.

Conclusion: WDD has a protective effect on endothelial cell injury induced by palmitic acid, which may be related to its component content. This method was suitable for the search of active components in classical TCM.

Biography

Dr. Muhammad Ijaz, from Pakistan, graduated from Shandong University with a Ph.D. in Pharmacology. Currently, he is working as an associate Professor of Pharmacology at Qilu Institute of Technology. His main research interests include anti-cancer study and antihyperlipidemic study. He has published 12 Sci research papers and review articles in different well renowned international core Journals with high impact factors. In 2020, he was appointed as the Principal at the Apex college of Pharmacy, Pakistan. Shandong University awarded him the 'Outstanding Graduate 2017 Shandong University International Student', and '2019-2020 Winner of Shandong University Distinguished International Graduate Student Scholarship'. Moreover, He has published several articles on the vital 'the belt and road' initiative in China Daily and other print media forums. He has published an article on 'Life in China and got third prize in 'My journey in SDU' writing/photo contest held by the International School, Shandong University. While being active in research, he has actively participated in the co-curricular activities. He enthusiastically participated in International Sports Gala and won the title of 'Champions' in the game of cricket.