عنوان مقاله:

Metabolomic profiling of liver tissues after acute administration of vardenafil in rats

محل انتشار:

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نویسندگان:

Onur Şenol - *Department of Analytical Chemistry, Faculty of Pharmacy, Atatürk University, Erzurum, Turkey*

Şaziye Sezin Palabiyik - *Department of Toxicology, Faculty of Pharmacy, Atatürk University, Erzurum, Turkey*

Beyzagül Polat - *Department of Pharmacology, Faculty of Pharmacy, Atatürk University, Erzurum, Turkey*

Yücel Kadioğlu - *Department of Analytical Chemistry, Faculty of Pharmacy, Atatürk University, Erzurum, Turkey*

Mehmet Emrah Yaman - *Department of Analytical Chemistry, Faculty of Pharmacy, Atatürk University, Erzurum, Turkey*

خلاصه مقاله:

Erectile dysfunction (ED) diseases have almost affected ۱۰۰ million men all over the world. Orally administered phosphodiesterase ۵ (PDE ۵) inhibitors are the most used pharmaceutical formulations for the treatment of ED. In this study, it is aimed to investigate the metabolomics feature of orally administered vardenafil in rats. To carry out the experimental procedure eight male Wistar albino rats were used. Their livers were gently removed and metabolomics profiles of each sample were determined by UPLC Q-TOF MS. Identification of metabolites was achieved by the METLIN database. Cluster analysis was also performed via Principle Component Analysis. Several metabolites were identified and results were evaluated by XCMS software. UPLC Q-TOF MS could be successfully applied to profile biomarkers and help us understand the molecular mechanisms of vardenafil usage. It was concluded that the level of some metabolites, responsible for the collagen synthesis and Kreb's cycle, has been statistically significant after the .vardenafil administration

کلمات کلیدی:

Erectile Dysfunction, Kreb's Cycle, Metabolomics, Q-TOF MS, Vardenafil