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Abstract

Ethnopharmacological relevance

Hugan Qingzhi tablet (HQT), a traditional Chinese medicine formula has been adopted for preventing and treating nonalcoholic fatty liver disease (NAFLD).

Aim

In order to explore the anti-NAFLD mechanisms of HQT, iTRAQ-based proteomics was employed to investigate the expression profiles of proteins in NAFLD rats induced by high-fat diet after HQT treatment.

Materials and methods

The NAFLD rat model was administration of high-fat diet (HFD) for 12weeks and administering HQT in a daily basis to the HFD groups. Biochemical markers, liver histology, pro-inflammatory cytokines, and oxidative stress/antioxidant biomarkers were assayed to evaluate HQT effects in HFD-induced NAFLD rats. Furthermore, the techniques of iTRAQ labeling coupled with strong cation exchange-non-liquid chromatpgraphy-tandem mass spectrometry (SCX-non-LC-MS/MS) analysis were employed for explore the mechanisms of HQT's protective effect against NAFLD in