



桃红四物汤抗氧化效应物质基础研究

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中文摘要:目的:评价桃红四物汤及各分离化学部位的抗氧化效应,对效应显著部位进行物质基础定性定量分析。方法:大孔吸附树脂分离制备各化学部位样品(TH-1~TH-15);采用清除DPPH和OH·的方法以及考察样品对过氧化氢(H₂O₂)损伤内皮细胞的保护作用,3种体外抗氧化实验评价桃红四物汤及各部位的抗氧化效应及特点。采用HPLC对效应显著部位的化学成分进行定性定量分析。结果:TH-2、TH-4、TH-7、TH-8、TH-9部位具有抗氧化效应,其中TH-8部位的抗氧化活性显著。分析结果表明TH-8部位中包含6种主要化学成分,分别为苦杏仁苷、芍药内酯苷、芍药苷、香豆酸、阿魏酸、苯甲酸,相对含量分别为75.70、31.26、60.79、1.19、6.1、108.4、861 mg·L⁻¹。结论:一系列芳香酸及苷类成分是桃红四物汤抗氧化的主要效应物质基础。

中文关键词:桃红四物汤 抗氧化 物质基础

Study on antioxidant effect and chemical constituents of Taohong Siwu decoction

Abstract: Objective: To evaluate the antioxidant effects of Taohong Siwu decoction and to exploit the bioactive constituents. Method: The samples were prepared by macroporous adsorptive resins (TH-1-TH-15). Three antioxidant models were adopted to evaluate the antioxidant activities of Taohong Siwu decoction and its different separated fractions in vitro. It was found that fractions (TH-2, TH-4, TH-7, TH-8, TH-9), separated from Taohong Siwu decoction, mainly contributed to the antioxidant effects. The chemical constituents in the most active fraction TH-8 were identified and determined by HPLC. Result: TH-8 showed significant antioxidant activities in the antioxidant experiments. Six compounds in the fraction were determined which were amygdalin, albiziflorin, paeoniflorin, benzoic acid, coumaric acid and ferulic acid. The contents were 75.70, 31.26, 60.79, 1.19, 6.1, 108.4, 861 mg L⁻¹, respectively. Conclusion: Glycosides and aromatic acids may be the principle effective constituents in the active fraction.

keywords: Taohong Siwu decoction antioxidant effects bioactive constituents

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