何首烏之抗微生物與抗氧化活性研究

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摘 要

何首烏 (Polygonum multiflorum Thunb)為蓼科多年生纏繞性藤本植物之根部，多產於長江以南各省，細長且末端呈現紅褐色，可助益滋養強壯、益精血、抗衰老、抗病毒與細菌等效用。本研究以水、甲醇或50%乙醇為溶劑輔以熱回流裝置熱液萃取何首烏，並探討萃取物之抗氧化活性與簡易抗菌試驗，以期開發天然無毒且低劑量之保存試劑。甲醇萃取物在α, α-diphenyl-β-pricrylhydrazyl (DPPH)試驗中，於濃度0.08 mg/mL達到最佳的清除率95.9%；而乙醇萃取物則在還原力、金屬離子螯合力、清除ABTS 陽離子、抑制硫代巴比妥酸反應產物 (TBARS)之生成，皆可在相對低濃度中達到最佳的抑制效果。在還原能力試驗中，與標準品butylated hydroxyanisole (BHA)相比，在濃度4.0mg/mL 時可達到最高之150%還原能力。超氧陰離子試驗中，由於何首烏固有成分：大黃素， 品濃度增加，超氧陰離子之活性越差。在抗微生物試驗中，以甲醇萃取物在Salmonella typhimurium、Staphylococcus aureus、Escherichia coli、Candida tropicalis 中皆有抑菌環的產生。因此，由這些試驗判別，何首烏萃取物具有高度抗氧化能力，未來可以此為開發天然無毒之食品添加試劑指標。

關鍵詞 : 何首烏、蓼科、DPPH 試驗、還原力試驗、抗微生物

目錄

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