花草茶水萃取液的抗氧化活性分析

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摘 要

本研究以薰衣草、紫羅蘭、迷迭香、檸檬草、檸檬馬鞭草、金盞花、薄荷葉、洋甘菊、矢車菊、菩提葉、鼠尾草和香蜂葉等十二種之市售花草茶為材料，利用清除DPPH(α-diphenyl-β-picrylhydrazyl)自由基能力、螯合亞鐵離子能力和還原力等三種方法分析其水萃取液抗氧化活性。並測定萃取液中總酚的含量，同時和0.02% BHT(Butylated hydroxytoluene)之抗氧化性作比較。 實驗結果顯示，在DPPH自由基清除能力方面，當檸檬馬鞭草(70 °C)萃取液達40 mg/mL時，其清除率達90.03%，效果可以和0.02% BHT相比。無論是50 °C或70 °C的萃取液，檸檬馬鞭草、迷迭香、香蜂葉和鼠尾草，其DPPH自由基清除率都可達60%。50 °C和70 °C花草茶水萃取液螯合鐵離子之能力皆不及0.02% BHT。整體表現以薰衣草水萃取液最穩定，在不同溫度萃取及在不同濃度下都有60%螯合鐵離子的能力，結果顯示並非濃度增加而螯合能力有增強效果。檸檬馬鞭草和薄荷葉，70 °C的水萃取液比50 °C萃取液有明顯較高的螯合鐵離子的能力。而菩提葉、金盞花、矢車菊和紫羅蘭，在70 °C水萃取液比50 °C水萃取液的螯合鐵離子能力反而低。還原力測定方面，70 °C萃取液當濃度提升到 20 mg/mL時，迷迭香、菩提葉、薄荷葉、金盞花的還原力隨著濃度則有顯著性差異(P0.05)。而50 °C水萃取液，除了菩提葉、鼠尾草、金盞花、紫羅蘭及薰衣草以外，其餘六株花草茶總酚結果也顯示無顯著性差異(P>0.05)。

關鍵詞 : 抗氧化活性、螯合亞鐵離子、還原力、總酚類、花草茶

目錄

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