萊菔子、白芥子及葶藶子萃取物之抗氧化性及抑制胃腺癌細胞影響之研究

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摘 要

萊菔子、白芥子及葶藶子為十字花科屬其中之中藥材之一，許多研究發現這些種子具有很好的改善消化系統、及改善呼吸系統的作用。另外，萊菔子有降血壓及抗菌的作用；白芥子有抗癌及刺激(皮膚)的作用；葶藶子有降低心血管疾病、調節血脂及利尿的作用。然而，目前對於這些種子的抗氧化性、抗癌及免疫調節的作用並無相關完整的研究。 經過不同溶劑萃取後，本研究比較萊菔子、白芥子及葶藶子萃取物之抗氧化性，包括測定總酚類化合物含量、類黃酮化合物含量、總抗氧化能力、還原力之測定、 α -diphenyl- β -picrylhydrazyl (DPPH) 自由基之清除能力、過氧化氫清除能力、LDL氧化延滯期(LDL oxidation Lag phase)測定等。本研究亦比較各種萃取物之抑制胃腺癌細胞能力，及免疫調節的作用，包括測定Human peripheral blood mononuclear cell (MNC)細胞分泌Tumor necrosis factor-1 α (TNF-1 α)、Interleukin-1 β (IL-1 β) 、Interferon-1 γ (IFN-1 γ)及產生Nitrogen Monoxide (NO)與對Cyclooxygenase-2 (COX-2)蛋白表現的影響等。結果顯示萊菔子、白芥子及葶藶子的熱水、冷水、甲醇、乙酸乙酯及丙酮之不同極性溶劑萃取物，以萊菔子之甲醇萃取物具有最好的抗氧化效果。此外，萊菔子之甲醇萃取物亦顯示最佳的抑制癌細胞生長能力及免疫調節的作用。，本研究顯示萊菔子之甲醇萃取物具有功能性中草藥開發的潛力。

關鍵詞 : 萊菔子、白芥子、葶藶子、抗氧化作用、抗癌作用、免疫調節

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