以大鼠模式探討咖啡中生物活性化合物對糖尿病及代謝症候群之影響

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Abstract

咖啡為酚酸與多酚的主要膳食來源，大量飲用咖啡與改善肥胖、降低代謝症候群 (Metabolic syndrome, MetS) 發病率及第二型糖尿病 (Type 2 Diabetes mellitus, T2DM) 風險相關，但其影響機制尚不明確。本研究目的為評估咖啡中酚酸與葫蘆巴鹼對大鼠飲食誘導的 T2DM 與 MetS 之影響。結果顯示葫蘆巴鹼可增加 T2DM 大鼠的體重，並抑制腎臟重量/體重比與血糖濃度，亦可透過增加 PPAR-γ/GLUT4 與抑制 leptin/TNF-α 而降低 T2DM 大鼠的糖尿病腎病變與胰島素阻抗。綠原酸可抑制 α-amylase 與 α-glucosidase，並顯著降低糖尿病相關的高血糖、高脂血症及肝腎損傷。咖啡可減少大鼠攝食量和體重增加，並降低其平均血糖、胰島素阻抗、三酸甘油酯及在肝臟中的脂肪變性。結果顯示咖啡在改善 MetS 方面相較綠原酸、咖啡酸和葫蘆巴鹼的營養劑組合更為有效，表明咖啡含其他生物活性物質或化合物具潛在的協同作用。

Reference

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