

中文題目：甘草酸抑制 E B 病毒複製的作用機制

英文題目： Mechanism of action of glycyrrhizic acid in inhibition of Epstein-Barr virus replication in vitro

作者：程兆明* 林繼謨* 陳宏基** 陳翰容** 林榮寵***

服務單位：義大醫院及義守大學內科* 整形外科** 濟大學分子醫學研究所***

Abstract

Background and Purpose: Glycyrrhizic acid (GL) is an herbal drug with a wide spectrum of antiviral activities. We decided to test whether GL could also inhibit Epstein-Barr virus (EBV) replication.

Methods and Results: The antiviral activity was tested in superinfected Raji cells using viruses isolated from an EBV-producing cell line P3HR-1. GL inhibited EBV replication in a dose-dependent fashion. The IC_{50} values for viral inhibition and cell growth were 0.04 and 4.8 mM, respectively. The selectivity index (ratio of IC_{50} for cell growth to IC_{50} for viral DNA synthesis) was 120. Time of addition experiments suggested that GL interferes with an early step of EBV replication cycle (possibly penetration). GL had no effect on viral adsorption, nor did it inactivate EBV particles.

Conclusions: Thus, GL represents a new class of anti-EBV compounds with a mode of action different from that of the nucleoside analogs that inhibit viral DNA polymerase.