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• 計畫英文名稱	--
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• 中文摘要	查無中文摘要
• 英文摘要	The effect of propofol on the hepatic and extrahepatic conjugation enzyme systems was assessed in vitro within microsomal and cytosolic preparations of the human liver, hamster kidney, lung and gut tissues. The functional activities of phase II enzymes including uridine diphosphate-glucuronosyltransferase (UDPGT), glutathione S-transferase (GST), and N-acetyltransferase (NAT) were evaluated under various concentrations, 0.05-1.0 mmol litre-1 of propofol, using 1-naphthol, 1-chloro-2,4-dinitrobenzene and p-aminobenzoic acid as substrates, respectively. From clinical plasma concentration, 0.05-0.10 mmol litre-1, to high concentration, 1.0 mmol litre-1, propofol demonstrated a dose-dependent inhibition to UDPGT activity in human liver microsomes. Propofol did not exhibit its significant in vitro inhibition to human hepatic GST activity until it reached high concentration, 1.0 mmol litre-1. In contrast, NAT activity was basically unaffected by various concentrations of propofol, 0.05-1.0 mmol litre-1, in human liver cytosolic preparations. In extrahepatic tissues, hamster renal and intestinal UDPGT activities were significantly inhibited by 0.25-1.0 mmol litre-1 of propofol. While GST and NAT in hamster extrahepatic tissues were unaffected even in high concentration, 1.0 mmol litre-1 of propofol. Propofol in various concentrations showed its differential inhibition to human liver and hamster extrahepatic conjugation enzymes due to different substrate- and tissue-specificities. The potential interference to metabolic profile of phase II enzymes due to propofol ? H ? Hs inhibition, esp. to UDPGT and GST, should be considered clinically significant in drug interactions when using propofol with other drugs for anaesthesia.