
Abstract
Pantethine is a versatile and well-tolerated hypolipidemic agent whose efficacy in this regard appears to be mediated by its catabolic product cystamine, a nucleophile which avidly attacks disulfide groups. An overview of pantethine research suggests that the hypotriglyceridemic activity of pantethine reflects cystamine-mediated inhibition of the hepatic acetyl-CoA carboxylase, which can be expected to activate hepatic fatty acid oxidation. Inhibition of HMG-CoA reductase as well as a more distal enzyme in the cholesterol synthetic pathway may account for pantethine’s hypocholesterolemic effects. If pantethine does indeed effectively inhibit hepatic acetyl-CoA carboxylase, it may have adjuvant utility in the hepatothermic therapy of obesity. As a safe and effective compound of natural origin, pantethine merits broader use in the management of hyperlipidemias.