

Effect of silybin dihemisuccinate on the ethanol metabolizing systems of the rat liver

Valenzuela, Alfonso

Bustamante, Juan C.

Videla, Carlos

Guerra, Ricardo

Silybin dihemisuccinate produces a decrease in the ethanol metabolic rate of rats. This effect is ascribed to an inhibition of the microsomal ethanol oxidizing system (MEOS). Alcohol dehydrogenase activity, catalase activity and NADPH cytochrome c reductase activity are not affected by the flavonoid. It is proposed that the inhibition of MEOS by silybin dihemisuccinate is related to its antioxidant properties, acting as a scavenger of the free radicals involved in ethanol metabolism by this enzymatic system. This observation may have therapeutical implications because microsomal lipid peroxidation induced by hydroxyl free radicals has been related to the etiology of hepatic alcoholic disease. Copyright © 1989 John Wiley & Sons Ltd.