P5   EEFFECT OF DEFERIPRONE (L1) ON OXIDATIVE DAMAGES OF LIPOPROTEINS IN THALASSEMIA

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ABSTRACT

Iron overload, is closely associated with pathophysiological changes in thalassemia. An oral iron chelator, deferiprone (L1) should be on trial to prevent the oxidative damage in thalassemic patient. The preliminary study the effect of L1 on biochemical compositions (total cholesterol, total protein, and total iron) and lipid peroxidation markers (conjugated diene, lipid hydroperoxide and malondialdehyde) in lipoproteins (VLDL, LDL, HDL_2 and HDL_3) was performed in 3 thalassemic patients. They took the daily dose of L1 (50-75 mg/kg) for several weeks (20-50 weeks). The time course of L1 on the changes of biochemical compositions and lipid peroxidation markers in their lipoproteins were widely fluctuated. However, the statistic data showed a significant therapeutic effectiveness in mobilizing iron and progressive decline in the level of initial phase oxidative markers (CD and LOOHs) with $r \geq 0.8$ ($p < 0.05$). This finding indicates that the overloaded iron is one of the initial factors for pathophysiological changes in thalassemia.

Key words : deferiprone, thalassemia, lipoproteins, lipid peroxidation