



Comparison of the Antioxidant Effects of D-002 (Beeswax Alcohols) and Grape Seed Extract (GSE) on Plasma Oxidative Variables in Healthy Subjects

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SUMMARY. Increased oxidative stress is implicated in several diseases. D-002, a mixture of six higher aliphatic alcohols purified from beeswax, and grape seed extract (GSE) (rich in flavonoids), have been shown antioxidant effects. This randomised, double-blinded study compared the effects of both substances on plasma malondialdehyde (MDA), total hydroxyperoxides (TOH), carbonyl groups (CG) and blood superoxide dismutase (SOD) in healthy volunteers. Fifty eligible subjects were randomized to D-002 (50 mg/day) or GSE (85 mg proanthocyanidine/day) for 8 weeks. Both D-002 and GSE reduced significantly plasma MDA (30.0% and 34.0%, respectively), TOH (31.6% and 34.0%, respectively) and CG (21.4% and 14.3 %, respectively), but unchanged SOD. No significant differences between groups were found. Both treatments were well tolerated. No subject dropped out because of adverse experiences (AE). Then, D-002 and GSE administered for 8 weeks were similarly effective for lowering plasma markers of lipid and protein oxidation, and similarly safe.

KEY WORDS: antioxidant, beeswax alcohols, D-002, grape seed fruit extract, oxidative variables

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