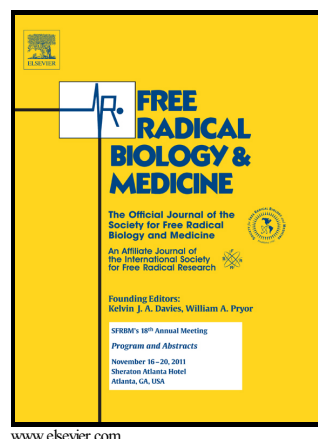


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Abbreviations: ALT; alanine-transaminase, AST; aspartate-transaminase, APAP; acetaminophen (paracetamol), BHMT; betaine-homocysteine methyltransferase, BIAM; N-(biotinoyl)-N'-(iodoacetyl)ethylenediamine, CBS; cystathionine β -synthase, CGL; cystathionine γ -lyase, DMG; dimethylglycine, GCL; γ -glutamylcysteine ligase, GSH; Glutathione, GS: glutathione synthetase, GSSG; oxidised glutathione, GWAS; genome-wide association analysis, Hcy: Homocysteine, MS; methionine synthase, , NAC: N-acetyl cysteine, NADQI; N-acetyl-*p*-benzoquinone imine, Nox4: NADPH Oxidase 4, SNP; single nucleotide polymorphism, RNS: reactive nitrogen species; ROS: reactive oxygen species, Wt; wild-type.

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