

Publication

Nonresponse to high-dose bupropion for depression in a patient carrying; CYP2B6; *6 and; CYP2C19; *17 variants: a case report.

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Author(s) Stäuble, Céline K; Lampert, Markus L; Mikoteit, Thorsten; Hatzinger, Martin; Hersberger, Kurt E; Meyer zu Schwabedissen, Henriette E

Author(s) at UniBasel [Meyer zu Schwabedissen, Henriette](#) ; [Stäuble, Céline](#) ; [Hersberger, Kurt](#) ; [Lampert, Markus Leopold](#) ;

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We report the case of a patient with major depression treated with high-dose bupropion due to prior detected subtherapeutic blood concentrations at standard dosing. Pharmacogenetic panel testing identified the patient as a carrier of the; CYP2B6; *6 allele, which has been associated with reduced bupropion metabolism and decreased concentrations of the pharmacologically active metabolite hydroxybupropion. Interestingly, we also found the patient to be homozygous for the; CYP2C19; *17 allele, predicting an ultra rapid metabolizer phenotype. We propose a combined effect of the detected; CYP2C19; and; CYP2B6; genetic variants on bupropion metabolism. This case underlines the potential benefit of pre-emptive pharmacogenotyping but also the yet still fragmentary evidence making precise pharmacogenotype guided antidepressant selection and dosing challenging.

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