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Due to the increasing trend of travelling to tropical destinations, the amount of prescriptions of antimalarial drugs as chloroquine, is rising permanently. Nevertheless, fatal suicide attempts with this drug are rarely seen in Belgium.

We describe the case of a 47-year-old man who committed suicide with chloroquine and who was found dead at home by his children. No empty blisters or tablet fragments were found.

After initial screening on an alkaline urine extract by HPTLC with iodoplatinate spray for detection and GC-MS analysis for further confirmation, chloroquine was identified as the possible cause of this fatal intoxication. Chloroquine and its two major metabolites desethyl- and bisdesethylchloroquine were quantified in heart blood plasma, femoral blood plasma and urine by HPLC-DAD. The concentrations of chloroquine in these samples were respectively 23,4 mg/L, 6,3 mg/L and 61 mg/L.

The literature shows that plasma concentrations higher than 0,6 mg/L may produce toxic effects and that concentrations higher than 3,0 mg/L may be fatal due to acute cardiotoxicity. Besides a whole blood ethanol concentration of 0,97 g/L, no drugs other than chloroquine were detected.

The death cause of this man could be attributed to the intake of a massive amount of chloroquine. The much higher concentration of chloroquine in heart blood in relation to venous blood is suggestive for the absorptive state as far as no post mortem redistribution of the drug has taken place. At these high concentrations fatal outcome is a consequence of cardiac conduction disturbances followed by asystolia in the terminal phase.

KEYWORDS: *Chloroquine, Fatal intoxication*

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