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INTRODUCTION: Tianeptine (Stablon), although structurally similar to tricyclic antidepressants, acts enhancing the reuptake of serotonin. The use of this medical substance is particularly important in elderly patients due to its high antidepressant and anxiolytic properties and almost non-existent sedative, anticholinergic and cardiovascular adverse effects.

A fatal case is presented with a 26 year-old male, lied down in bed with mushroom foam in his mouth. During death place investigation empty tablets of Stablon® and a suicide note were found next to the body.

METHODS: The method comprised a liquid-liquid extraction procedure with n-hexane:ethylacetate (70:30) and n-hexane:isopropanol (99:1), followed by an LC-DAD-MS analysis on a 2695 Alliance System, a 996 Photodiode Array detector and a ZQ 2000 Mass Spectrometer from Waters, using positive mode electrospray ionization in the selected ion-recording (SIR) mode. Chromatographic separation was achieved using a XTerra™ C18 column (2.1x150mm, 5µm), eluted isocratically with ammonium acetate buffer 10 mM:acetonitrile (30:70, v/v), pH 3, at a 0.3 ml/min flow rate.

Tianeptine was quantified by selected ion-recording of m/z 437 (using m/z 292 as the confirmation ion) and m/z 446 for the metabolite MC5, hydrochloride.

RESULTS: Calibration curves for Tianeptine were performed in acetonitrile and in blood, with linearity from 0.01µg/ml to 10µg/ml and a 1.0ng/ml detection limit. Toxicological results revealed the following Tianeptine concentrations in post-mortem samples: blood 5.1µg/mL; urine 1.9µg/mL; liver 22.6µg/g; stomach contents >22 mg. Femoral blood analyses also revealed an ethanol concentration of 0.53g/L.

CONCLUSIONS: The simultaneous acquisition with two different detections, photodiode array and mass spectrometry, allowed us to detect with higher sensibility and sensitivity this antidepressant agent. The results of death place investigation and posterior toxicological analysis may suggest that Tianeptine was responsible for this individual suicide. However, no published data was found concerning a fatal case with this antidepressant and thus, it is not possible to compare with other author's results.

KEYWORDS: *Forensic intoxication, Tianeptine, LC-DAD-MS*

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