



Pathology & Biology Section – 2008

G41 Exceptional Suicide by Sharp Force During Mefloquine Therapy: A Case of Drug Induced Psychosis?

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The goal of this presentation is to present a case report about a special suicide.

This presentation will impact the forensic science community by assisting in the understanding of drug-induced psychosis.

Suicide by stabbing to the head and/or driving sharp objects into the skull is of extreme rarity. This paper reports the case of a 27-year-old man, who committed suicide by multiple knife stabs and cuts to the head, torso and upper limbs.

A 27-year-old man was found dead at home, lying on his bed. Doors were locked from the inside, and there was no evidence of violence in the flat. The deceased was completely naked, with abundant bloodstains on the whole body surface. The 10-cm long handle of a kitchen knife, also stained with blood, was present near the corpse with the blade broken at ca. 1 cm from the guard. The rest of the blade was apparently missing. According to cadaveric signs and police findings, death was likely to have occurred the day before. Autopsy showed two superficial cuts at the lower, anterior part of the neck, two stab wounds in the right temple, one stab wound in the precordium area, one cut at the top of right shoulder near the acromion, one cut at the anterior side of right forearm, one deep complex cross-shaped incised wound at the anterior side of left forearm and wrist a perforating wound of the skull, the 10-cm long broken blade of the knife being still embedded in the right temporal lobe of the brain. The deceased had no history of psychiatric illness but was currently treated by mefloquine, a quinine derivative associated with a high rate of psychiatric side-effects. Toxicology confirmed a recent intake of mefloquine together with chloroquine, another antimalarial drug.

Acute psychiatric reactions, in particular depressive disorders, have been reported as a side-effect of a wide array of medications, including non-steroidal anti-inflammatory drugs, antihypertensive drugs, anticonvulsants, steroids, or antimalarials. Among this latter group, Mefloquine distinguishes itself by a high prevalence of various psychiatric side-effects pointed out during the early postmarketing period. In 1989, the World Health Organization commissioned an investigation that confirmed the existence of such complications, with a prevalence estimated at 4.2/1000 treatments. In 60% of reported cases, disorders appeared after the first intake of mefloquine. Serious complications were noticed only for curative treatments with doses equal to or greater than 1000 mg. To the authors' knowledge, this is the first report of a completed suicide with very strong evidence of mefloquine implication. In the present observation there is a very strong presumption that mefloquine was a causative, or at least contributive, factor in the victim's suicide. This statement is supported by the extraordinary method used to commit suicide, the absence of psychiatric history in the victim, whereas most suicides *par sharp force* to the head have been reported in mentally disturbed patients and prison populations, the close temporal relationship between suicide and mefloquine intake, as documented by the detection of the drug in postmortem samples. In the present observation a contributive role of chloroquine coingestion is difficult to assess because psychiatric side-effects encountered with this drug are much more infrequent than with mefloquine. However it may be noteworthy that at least one severe reaction, including paranoia, hallucinations and suicidal ideation, has been reported in a subject without psychiatric history and successively treated by mefloquine then by chloroquine. Discussion focuses upon mefloquine-induced psychiatric disorders and highlights the importance of performing toxicological investigations in cases of 'unusual' suicides.

Although such events fortunately remain quite infrequent, forensic practitioners should keep in mind the possibility of drug-induced psychoses and depression, and toxicological analyses should be the rule in 'unusual' suicides especially in subjects with no known psychiatric history.

Mefloquine Psychosis, Suicide, Sharp Force