



A CASE OF COMBINED INTOXICATION WITH RESOCHIN AND ZOPICLONE

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ABSTRACT

This refers to a rare intoxication case of a woman aged 20 years with anamnesis data from her family (one of them is physician) that she has suffered from depression. She was on students' vacation after the university year in UK and she was found dead in her bed at her home. Her relatives give the information that she was earlier prescribed Resochin due to her articular problems. The inquest on the spot during the crime scene investigation found empty packages of the medicine Resochin on the table near the bed and in the recycle bin with missing over seventy- eight tablets, as well as a laptop with her parting words written down and addressed to her parents and her friend. During the forensic autopsy and forensic-chemistry investigation of blood samples, urine and internal organs it was concluded that the case is an acute intoxication with Resochin and Zopiclone.

Key words: intoxication, Resochin, Zopiclone.

INTRODUCTION

Resochin is an anti-malarial medicine with synonyms Artrochin, Resochin, Chloroquinini, Diphoshas, Quinachlor and is a derivative of 4-aminocholin. The medicament is sold in ampoules 5% solution and on tablets with 250 mg active substance. It is used for prophylaxis and treatment of malaria caused by the four malaria agents, which are pathological for humans, excluding the Chloroquin-resistant strains. It is also prescribed for Chomical polyarthritis (rheumatoid arthritis), including juvenile rheumatoid arthritis. Usually the prescribed starting dose is 2 x 5 mg Chloroquin per kg of body weight. The majority of the unacceptable reactions which are observed after the application of Chloroquinin are dependant on the dosage and they occur when the plasma concentration is over 250mg/l.

Zopiclon (class ciklopirolon) is a fast and short-acting sleeping pill. Its chemical structural formula is different from the

commonly used so far sleeping pills (class ciklopirolon). This medicament causes drowsiness and it eases the anxiety. The effect of Zopiclon and the effect of other medicines used simultaneously can have an influence upon each other.

MATERIALS AND METHODS

During the forensic autopsy the morphological find was specifically for a sudden death and in the absence of traumatical injuries. While the stomach contents were observed it was found about 50 ml. white material with a smell of some medicines. A similar material was found in the beginning third of the intestines. During the autopsy for an additional chemical investigation were also taken for analysis samples from blood, urine, kidney, lever, intestine and its contents, as well as from the stomach and its contents. The analysis reported the following concentration levels of Resochin and Zopiclone, showed in **table 1**.

RESULTS

The autopsy find is with morphological signs of a sudden death, while there were no morbid changes observed or traumatic injuries that might have caused the mortal end. In the stomach contents and in the beginning third of

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the intestines it was found a white messy material with a smell of medicines.

Table 1.

Sample	Resochin	Zopiclon
Blood	11,55 mg%	-----
Urine	12,02 mg%	Traces
Kidney	78,20 mg%	Traces
Liver	39,10 mg%	Traces
Intestine (with contents)	117,30 mg%	Traces
Stomach (with contents)	136,85 mg%	Traces

During the chemical analysis the following concentration of Resochin was measured in mg%: blood – 11,55; urine - 12,02; kidney - 78,20; liver - 39,10; intestine (with contents) - 117,30; stomach (with contents) - 36,85. They were also traces of the medicine Zopiclon in the samples of urine, kidney, liver, intestine (with contents) and in the stomach (with contents).

The observed concentrations of Resochin in the blood and in the internal organs are exceeding by far the therapeutically used dosage of the medicine.

CONCLUSION

Based upon the autopsy evidence (sudden death with lungs edema, dark liquid blood, intensive post death spots and cerebral edema as well as traces of absorbed tablets into stomach and in the beginning third of the intestines) and the result of chemical analysis, corresponding to the evidences from the crime scene investigation, all these lead to the conclusion that the case is acute intoxication with Resochin. It can be also concluded that the medical Zopiclone also contributed to the dead and they both combined have caused critical cerebral centers paralysis, and the development of acute respiratory and cardio-vascular failure and sudden death as a result.

In the specialized toxicology and medical literature in Bulgaria so far there were no cases reported for similar acute intoxication with Resochin, taken in mortal dosages.

It is a very rare case of an acute intoxication with Resochin, which is also reported in single cases in the international specialized literature – cases, which have in common with the forensic practice. The forensic investigation and the forensic toxicological analysis gave us a reason to discuss the topic in order to implement appropriate toxicological methods and a standards concerning the benchmark in the intoxication with Resochin.

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