12. PHARMACOLOGICAL APPROACH TO WERNICKE-KORSAKOFF SYNDROME

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Introduction. Wernicke-Korsakoff Syndrome (WKS) represents, in 16-38% of cases, a clinical triad of confusion, ataxia and nystagmus. Conceptualized as two distinct syndromes, 85% of survivors of the untreated acute phase of Wernicke encephalopathy (WE), caused by vitamin B1 (thiamine) deficiency, develop Korsakoff syndrome (KS) – with anterograde, retrograde amnesia, spatiotemporal disorientation, confabulation.

Aim of study. The aim of our study was elucidation of drug treatment in Wernicke-Korsakoff syndrome.

Methods and materials. This article is based on data collected from several articles available on Medscape, NCBI, PubMed, Google Scholar and that have been published since 2013.

Results. Since earlier conducted case reports showed that thiamine deficiency causes WKS, clearly its therapy would focus on the choice of dose, route and duration of vitamin B1 administration. However, the practical application of the treatment is more difficult, since 75-80% of cases of Wernicke encephalopathy, which occurs most of the time primary to KS, is misdiagnosed with other conditions, which makes 80% of cases of Wernicke encephalopathy end with the development of Korsakoff syndrome, 15-20% ending lethally. Thiamine treatment is urgent to prevent further neurological changes. Alcoholic patients with WE can be treated with 500 mg thiamine hydrochloride in 100 ml of 0.9% NaCl solution, by intravenous infusion for 30 min, repeated 2-3 times a day. If the patient doesn't respond after 2 days of treatment, it can be stopped. If a response is observed - the dose changes to 250 mg intramuscularly or intravenously daily for 3-5 days or until observed clinical improvement. Some studies recommend prolonging the course with oral doses of 300 mg thiamine daily for 1-2 weeks. In addition, it is recommended to take electrolytes (Mg and K), for the good absorption of vitamin B1 and functioning of enzymes. In non-alcoholic patients with WE, response is seen at doses of at least 100-200 mg intravenously of thiamine, followed by thiamine administered orally daily.

Conclusion. The direction of Wernicke-Korsakoff Syndrome treatment was pretty clear due its etiology - thiamine deficiency. However, the main obstacle in providing adequate treatment is the misdiagnosis of WE - a risk for KS development. To avoid the latter, timely administration of thiamine substitution therapy with daily doses of 500-1500 mg in alcoholic patients and minimum 200 mg in non-alcoholic patients, followed by oral doses of vitamin B1 and electrolytes until recovery, is the best solution.