

363. PHARMACEUTICAL APPROACHES OF 1,3,4-OXADIAZOLE DERIVATIVES

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Introduction: 1,3,4-oxadiazole is a heterocyclic compound containing an oxygen atom and two nitrogen atoms in a five-membered ring. Derivatives of this structure are the key compounds with various and important biological activities which can be used in drug design. The objective of this study is to make an overview of pharmaceutical approaches and broad spectrum of pharmacological activities of 1,3,4-oxadiazole derivatives as reported over the past ten years.

Material and methods: This review is based on published studies in English providing relevant information on 1,3,4-oxadiazoles were identified by searching PubMed, Google Scholar, Embase and Springer, restricting the studies with biological information and the year of publishing from 2006 to February 2016.

Discussion results: Some of recent studies have shown that 1,3,4-oxadiazoles and its derivatives were reported to possess an excellent antimicrobial, antifungal, anti-inflammatory, analgesic, antioxidant activity. This research provides information about chemical properties, constants, assays and methods used for qualitative and quantitative analysis of 1,3,4-oxadiazoles and its derivatives. Also, we highlight pharmacophore groups which lead to specific pharmacological activities. The antimicrobial activity is the most reported biological effect. According to the F. Macaev's research, the newly synthesized series of 5-aryl-2-thio-1,3,4-oxadiazole compounds appeared to be most active derivatives presenting more than 90% of mycobacterial growth at 12.5 µg/ml.

Conclusion: This paperwork provides fundamental chemical and pharmacological information about 1,3,4-oxadiazole derivatives it proves to be significant for further research work on the bioactive oxadiazole ring containing compounds.

Key words: 1,3,4-oxadiazole, antimycobacterial, pharmacophore, assay, drug design.

364. THE INFLUENCE OF HYPERBARIC OXYGEN ON ATTRACTION TO ALCOHOL

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Introduction: Despite the joint efforts of scientists worldwide during many years, the alcoholism continues to be a major medical and social problem. The effective method of treatment remains to be developed.

Aim: To study the action of the hyperbaric oxygen (HBO) on attraction to alcohol in experimental conditions.

Material and methods: The study of alcohol consumption's level by rats was performed by selecting animals with different degree on attraction to alcohol. Fifty rats were divided according to their activity in condition of inescapable swimming in water pool. The overall time of swimming was fixed. Accordingly, animals were divided in low-active (LA)-22 rats and high-active (HA)-28 rats. Pursuant to existent literature, LA rats have higher attraction to alcohol than HA rats. Two groups by 10 rats were formed. The second of it was the control group. The LA animals were placed in individual cages with access to water and alcohol (15%). The overall volumes of ingested alcohol were compared during 10 days on the background of HBO (oxygen 2 ata, 60 min) and 10 days without HBO for the first group. The control group underwent the same measurement but without HBO action.

Results: The tests showed that the alcohol consumption in LA rats sharply decreased after the hyperbaric oxygen action. In the control group the alcohol consumption remained constant during the entire period. It is possible that the attraction to alcohol decrease because of the HBO's influence on neuromediator system, namely the synthesis and metabolism of serotonin. Thus we can presume the inclusion of oxygen in the processes related to attraction to alcohol as the serotonergic system has its important role in the voluntary alcohol consumption's adjustment.

Conclusion: The conducted research showed the influence of hyperbaric oxygen on the central nervous system's structures where motivation reactions are generated. These oxygen properties could complete the action of drugs that suppress the attraction to alcohol.

Key words: Alcohol, attraction to alcohol, hyperbaric oxygen.

365. THE FACTORS INFLUENCING PERSONAL CHOICE IN NON PRESCRIPTION DRUGS RELATED PAIN MANAGEMENT

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Introduction: Pain is a common medical problem, and relief of pain is an important therapeutic goal. Although mild and moderate pain by outpatients is most commonly treated with over-the-counter drugs. Over the past decade, there have been growing concerns about the harm — abuse, as well as serious injury and death — caused by the use of over-the-counter painkillers. These concerns have emerged in parallel with the evolving understanding of the importance of pain management in medical care. It's important to maintain the balance between providing access to pain medications for those who need them, and on the other hand, managing the variety of risks posed by painkilling drugs. Especially nowadays when drug consumption between society has increased significantly. More and more people have been hospitalized because of these drugs side effects. This fact shows that society in Europe aren't informed about over-the-counter painkillers harmful influence to their health.

The aim of this study is to evaluate factors influencing non prescription drugs against mild-moderate pain choice.