

**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 ftors influencing non prescription drugs against mild-moderate pain choice.

### **Objectives:**

1. To evaluate pharmaceutical advertisement influence for non steroidal anti-inflammatory drugs (NAID) or paracetamol usage in society.
2. To assess the links between the most commonly used non prescription painkillers and respondents professions(related to biomedical sciences or not related to biomedical sciences).
3. To determine the links between respondents age, gender, type of pain they suffer and the way they choose to reduce the pain.

**Materials and methods:** The online questionnaire form was applied for two biggest Lithuania's cities - Vilnius and Kaunas - citizens with the aim to evaluate different age and professions Lithuanian citizens knowledge about pain pharmaceutical agents and their pain management.

The questionnaire was designed to reveal respondent's gender, age, sociodemographic, experienced pain and knowledge of medicine drugs against pain (painkillers) factors.

Total 99 respondents in the age of 19-80 years were interviewed. According the gender respondents distributed equally by 51 (51.1%) males and 48 (49.9%) females.

The statistical analysis of the research was performed using IBM SPSS Statistics 19.0 version. For categorical data analysis  $\chi^2$  and Fisher's exact tests were performed.  $P < 0.05$  was evaluated as statistically significant.

**Discussion results:** The 24.2 % (n=24) respondents answered that their choice and knowledge for painkillers usage was affected by radio, TV or the internet advertisements, the others noticed that they relay their pain management on friends & relatives (n=75), as well as doctors (n=16) and pharmacists (n=27) recommendations. There was found significant difference between paracetamol (p=0.049) and Solpodeine (p=0.012) choice. Advertisements - affected respondents chose Solpodeine as the main painkiller 25.5 %, although in non advertisement - affected respondents Solpodeine was chosen only 5.3 %. 95,8 % of advertisement - affected respondents do not use paracetamol for pain management, when more than 1/5 (21.3 %) of non advertisement - affected people answered that they use paracetamol as main painkiller. The biomedical profession related persons more often chosen paracetamol 37.8 % and Ibuprophen 70.4% as main painkillers than others 4.8% and 40.3%, respectively,  $p < 0.05$ . Also there was found the link between paracetamol and ibuprophen pain management usage and gender: women were more likely to choose paracetamol and ibuprophen 72.5 % and 66.7 % as men (respectively 6.3% and 41.7%).

Solpodeine as pain management choice selected 25.5 % advertisement affected people, when in non advertisement affected respondents group this choice marked just 5.3 %. The biomedical profession related persons were more often as their choice painkiller marked paracetamol (37.8 %) and ibuprophen (70.4%) than others (4.8% and 40.3%, respectively),  $p < 0.05$ . Also there was found the link between paracetamol and ibuprophen pain management usage and gender. Women (respectively 72.5 % and 66.7 %) were more likely to choose paracetamol and ibuprophen as men (respectively 6.3% and 41.7%). The back pain suffering persons were tend to choice NAID drugs in ointment form ( $P < 0.05$ ). No links were found between other painkillers such Analgin, Ketanov, Dolmen, Aspirin, Diclofenac and the respondents choice in pain management, sociodemographical, profession and advertisement factors.

**Conclusion:** Although the respondents affected with pharmaceutical advertisement rarely use paracetamol for pain management, they are more likely to choose solpodeine than those who were not affected by advertisement.

Biomedical related profession Lithuania citizens are more tend to choose pain management with paracetamol and ibuprophen than no biomedical profession citizens.

There was relationship between paracetamol and ibuprophen choice and also there was link between pain type and drugs form.

**Key Words:** NAID, paracetamol, aspirin, mild-moderate pain, pain management.