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Knowledge and pain management of nonsteroidal anti-inflammatory drugs (NSAIDs) side effects linked to gender

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ABSTRACT

Introduction: Pain is a common medical problem and the relief of it is one of the most important therapeutic goals. 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 to evolving pain management's importance in medical care. It is necessary to maintain the balance between providing access and the demand of medications for those in need.
Aim of study: To evaluate factors influencing the choice of non prescription drugs against mild - moderate pain.
Objectives: To determine and compare the most frequent type of pain in men and women groups. To compare the frequency of NSAID's used to manage pain in different gender groups. To evaluate the Lithuanian citizen's knowledge about NSAIDs side effects and compare it with gender groups.
Methods: The online questionnaire form was applied for the two biggest Lithuania's cities - Vilnius and Kaunas – citizens. Total 99 respondents in the age of 19-80 years were interviewed. IBM SPSS Statistics ver.19.0 was used for categorical data analysis χ^2 and Fisher's exact tests were performed. $P < 0.05$ was evaluated as statistically significant.
Results: According to the gender respondents distributed equally by 51 (51.1%) males and 48 (49.9%) females. Most women tend to suffer from pain 1 time per month (41.2%) and most of men (39.6%) indicated suffering from pain rare than 1 time pro six months, $p = 0.003$. The women were more likely to mark gastric ulcers (68.9%), renal insufficiency (68.4%) as the NSAID's side effect than men (31.1 % and 31.6 5 respectively). Mostly women use NSAIDS for menstrual (66.7%), headache (74.5%), and muscle pain (17.7), men uses it for back pain (43.8%) and headache (35.1%), $P<0.05$. Women (66.7 %) were more likely to choose ibuprofen than the men (41.7%), $p<0.05$. In other NSAIDs the consumption choice does not statistically differ.
Conclusions: Frequently the menstrual pain and headaches are treated with NSAIDS in women group, and back pain and headache in men group. Women tend to use NSAIDs against the pain one time per month and most of the males tend to use it as rare as 1 time per 6 months. Both men and women groups showed the lack of information about NSAIDS side effects (with women showing more knowledge in gastric ulcer and renal insufficiency as a side effect).
Keywords: NSAID, men – women pain, aspirin, pain management.

Introduction

Pain is a common medical problem, and relief of pain is an important therapeutic goal. Although mild and moderate pain by patients is most commonly treated with over-the-counter drugs. While relatively little is known about how various variations affect responses to a given NSAIDs, it is likely that genetic differences, including differences in drug metabolism between different patients, also have a role in the variable responses across individuals [1].

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. Drug – caused impairment is enhanced when medications are dosed less frequently [2]. At equipotent doses, the clinical efficacy of the various NSAIDs in patient populations is similar [3] by contrast, individual responses are highly variable [4].

General avoidance of the use of multiple NSAIDs in combination (including concurrent therapy with both oral and topical NSAIDs) is because of the potentially greater risk of adverse events with higher total NSAID doses and with multiple medications and because of the lack of evidence or clinical experience that the use of two or more NSAIDs concurrently is associated with improved efficacy that justifies the increased risk of high total NSAID doses [5,6]. Dosing issues that affect the therapeutic response include the daily dose, frequency of drug administration, and the duration of use [7].

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 and pain medications for those who need them. 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 the U.S. or Europe aren't informed about "over the counter" painkillers harmful influence to their health [8].

Aim of study

To evaluate factors influencing the choice of non prescription drugs against mild - moderate pain.

Objectives

- To determine and compare the most frequent type of pain in men and women groups.
- To compare the frequency of NSAID's used in pain management in different gender groups
- To evaluate the Lithuanian citizen's knowledge about NSAIDs side effects and compare it with gender groups

Materials and methods

- The online questionnaire form was applied for the two biggest Lithuania's cities - Vilnius and Kaunas citizens.
- IBM SPSS Statistics ver.19.0 was used for categorical data analysis χ^2 and Fisher's exact tests were performed. $P < 0.05$ was evaluated as statistically significant.

Discussion and results

- According to the gender respondents distributed equally by 51 (51.1%) males and 48 (49.9%) females.
- Most women tend to suffer from pain 1 time per month (41.2%) and the most of men (39.6%) indicated suffering from pain rare than 1 time pro six months, $p = 0.003$.
- The women were more likely to mark gastric ulcers (68.9%), renal insufficiency (68.4%) as the NSAID's side effect than men (31.1 % and 31.6 5 respectively).
- Mostly women use NSAIDs for menstrual pain (66.7%), headache (74.5%), and muscle pain

(17.7), as men uses it for back pain (43.8%) and headache (35.1%), P<0.05.

- Women (66.7 %) were more likely to choose ibuprofen than men (41.7%), p<0.05. Other NSAIDs consumption choices does not statistically differ (Fig 1).

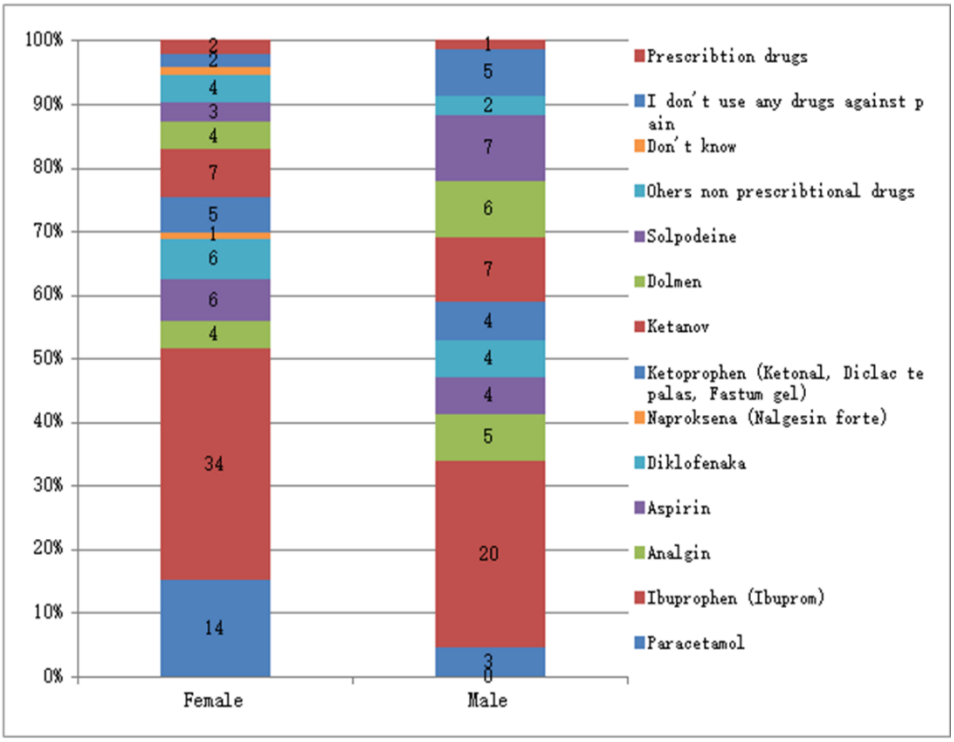

Figure 1. NSAIDs consumption between males and females.

Conclusions

- The most frequent pain treated with NSAIDs were menstrual and headache in women group, and in men group back pain and headache.
- Women tend to use NSAIDs against pain 1 time pro month the most of male are tend to use it rare as 1 time pro 6 months.
- Both women and men groups showed lack of information about NAIDS side effects (with women showing more knowledge in gastric ulcer and renal insufficiency as side effect).

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