Misure of tramadol among motorcycle taxi drivers of Lome (Togo)


1Department of Toxicology, Faculty of Health Sciences, University of Lome (Togo).
2Department of Public Health, Faculty of Health Sciences, University of Lome (Togo).
3Department of Animal Physiology, Faculty of Sciences, University of Lome, Togo.
4Department of Neurology, Faculty of Health Sciences, University of Lome (Togo).

Abstract: Tramadol is a synthetic opioid indicated for the treatment of pain. It’s increasingly deviated from its main use by some people especially by forced laborers. The aim of this study is to evaluate the level of misuse of tramadol in motorcycle taxi drivers. This is a prospective descriptive transversal survey, perform within 2-month period, in motorcycle taxi drivers in three suburbs of Lomé. One hundred eleven (111) motorcycle taxi drivers which are tramadol consumers have participated in the study. Several of them have bought tramadol without any prescription (84.7%). Tramadol was often purchased in the street (96.4%). The average price was 367 CFA with extremes of 100 to 1200 CFA francs. The reason most cited for the use of this drug was “to feel stronger” (93.7%). Approximately 91.9% consumed daily tramadol. Tramadol is often associated with other products, like an energy drink called “rush” (18%) and coffee (12.6%). The most discussed side effect was sleep disorders (69.4%). The spontaneous ejaculation was mentioned by 12.61%. Approximately 41.4% of respondents have tried, 2 to 4 times without success, to stop the consumption of tramadol. The withdrawal syndrome was constituted of nervousness (73.9%). This work has evaluated the misuse of tramadol within a target group. Tramadol is increasingly used with some other substances, including drugs. Misuse of tramadol is accentuated by the illicit sale of drugs in the city of Lome. The fight against drug counterfeiting and delivering of tramadol after medical prescription will help to fight against this scourge.

Key words: Drug addiction, tramadol, misuse, motorcycle taxi, Togo

Introduction

Tramadol is a synthetic opioid; it belongs to the family of opioids. It is used in the medical community as an analgesic in the class II. Tramadol works by inhibiting the recapture of serotonin and norepinephrine, this causes euphoria sensation [1]. His acute intoxication has similarities with the overdose of opiates such as restlessness, nervousness, confusion, tachycardia and hypertension.

Tramadol [2] is more and more deviated from its main use as an analgesic by adolescents [3], young adults, strength of workers, particularly taxi motorcycle drivers [4]. The tramadol found in misuse cases is provided mainly from illegal sales. Tramadol is often used as thirst quencher, sleep cut, an energizer and a sexual stimulant. The abuse and chronic use of tramadol may cause addiction and dependence [5].

The West African countries such as Nigeria, Benin and Ghana are also confronted to the illegal use of these drugs [5,8-9]; sometimes purchased at pharmacies, but obtained mostly outside official channels possibly counterfeit (street market) [10]. This facility to divert tramadol or psychoactive drug is also practiced in Togo. The consumption of tramadol was reported by the population, but no studies have been carried out, on this scourge in our country. Hence the importance of this works whose’ goal was to evaluate the misuse of tramadol within the motorcycle taxi drivers in order to guide drug regulations and enrich the literature.

Materials and Methods

The study has taken place in the tramadol consumption areas of three (03) suburbs of Lomé (Dékon, Hédrzanawoé, Agoe) initially identified.

Period and type of study

This a prospective descriptive transversal survey, perform within 2-month period from July 1, 2018 to September 1, 2018, in motorcycle taxi drivers in three suburbs of Lome.
Population and method of study
Motorcycle taxi drivers of these areas constituted our study population. The all-comers techniques were used for the data collection. One hundred eleven (111) motorcycle taxi drivers have participated in the survey.

Inclusion criteria
Were included in the study, motorcycle taxi drivers present during our visit, consuming tramadol and having freely agreed to participate in the survey.

Non-inclusion Criteria
Were not included, the motorcycle taxi drivers who refused to participate in the survey.

Collection of data
A questionnaire was used for this survey. It was structured around major data collection items on the misuse of tramadol and sociodemographic characteristics and composed of simple question and multiple-choice questions.

A pre-survey was conducted for three (3) days from 31 May to 2 June 2018 in the districts of Kégué and Adéticopé, suburbs of Lomé, not selected for the study. The purpose of the pre-test was to evaluate the questionnaire. The interviews were conducted in the parking places of motorcycle taxi drivers and were all made by the same investigator. The survey itself was conducted in specialized cabarets in sales of tramadol, a brief description of the work and the verbal agreement of motorcycle taxi drivers. The questionnaire was administered as individual interview.

Processing and analysis of data
The entry, compilation and data analysis were performed using the software Epi-Info 7 and Microsoft Excel 2016. The collected variables were used to determine the frequencies were compared between them, thanks to the chi-test 2, with a significance level of 5%.

Results
Demographics
One hundred eleven (111) motorcycle taxi drivers have participated in the study. All respondents were male. The average age of respondents was 32.7 years with a range of 18 and 50. The level of most instructed motorcycle taxi drivers was the secondary (45.1%) followed by primary level (30.6%), without instruction (19.8%), and the upper level (4.5%).

Sixty-three point one percent (63.1%) of the respondents were married and, or are in couples. Three of 4 respondents (79%) or more earned for the activity of motorcycle taxi driver from 2000 to 5000 CFA francs per day.

Misuse of tramadol
Of the 111 respondents, 94 (84.7%) were taking tramadol without prescription. The initiation to consumption of tramadol was induced by friends (44.2%), by own initiative (24.3%), by girls (27%) and by sellers (4.5%). Tramadol was bought on the street in 96.4% of cases. In addition to the misuse of tramadol, 19 (17.1%) respondents used cannabis. The average daily expenditure for the purchase of tramadol was 367 FCFA, with a range of 100 to 1200 CFA francs. The average number of years of tramadol consumption was 6.3 years, ranging from 1 month to 33 years. The reasons of tramadol use were feeling stronger (93.7%), analgesics activities (91%), stay awake (85.6%), have more motivation (85.6%) and increase sexual performance (84.7%) (table 1). The wished effects delay, mentioned by respondents, ranged from 0 to 30 minutes with an average of 5.8 minutes. These effects lasted from 3 to 36 hours of time with an average of 15.4 hours.

The rate of tramadol use was daily by 91.9% of respondents, at least once a week by 7.2% and by 0.9% at least once a month. Three (03) taken daily has been mainly reported by our respondents. Daily doses were 50 to 2500 mg with an average of 367.7 mg. According to 18% of our investigator, rush (energy drink) was predominantly the substance associated when taking tramadol followed by mixing alcohol and coffee (12.6%), passion (energy drink) (9%), ‘‘ataya’’ (tea) (5.4%) and ‘‘anda’’ (energy drink) (3.6%). In tramadol sales cabarets, tramadol is initially dissolved in coffee in all cases. The consumption of high doses (750 mg and more) of tramadol was higher among married men and or couples (23 respondents) against single (8 respondents).

Table 1: Distribution of respondents according to tramadol consumption reasons

<table>
<thead>
<tr>
<th>Reasons consumption</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel stronger</td>
<td>93.7%</td>
</tr>
<tr>
<td>Analgesic effect</td>
<td>91%</td>
</tr>
<tr>
<td>Stay awake</td>
<td>85.6%</td>
</tr>
<tr>
<td>More motivation</td>
<td>85.6%</td>
</tr>
<tr>
<td>Sexual performance</td>
<td>84.7%</td>
</tr>
<tr>
<td>Feeling of well being</td>
<td>73%</td>
</tr>
<tr>
<td>Euphoria</td>
<td>71.2%</td>
</tr>
<tr>
<td>Against the cold</td>
<td>70.3%</td>
</tr>
</tbody>
</table>

Table 2: Distribution of respondents according to the adverse effects of the consumption of tramadol

<table>
<thead>
<tr>
<th>Side effects</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convulsive rises</td>
<td>33.3%</td>
</tr>
<tr>
<td>Headaches</td>
<td>60.3%</td>
</tr>
<tr>
<td>Dizziness</td>
<td>62.2%</td>
</tr>
<tr>
<td>Sleeping troubles</td>
<td>69.4%</td>
</tr>
<tr>
<td>Breathlessness</td>
<td>45%</td>
</tr>
<tr>
<td>Nausea and vomiting</td>
<td>58.9%</td>
</tr>
<tr>
<td>Skin rash</td>
<td>67.6%</td>
</tr>
</tbody>
</table>
Most reported adverses events reported by respondents after taking tramadol were sleep disorders (69.4%), rash (67.6%), dizziness (62.2%) and headache (60.3%) (table 2). Some side effects not listed in the usual effects of opiate abuse were observed, fifty-six cases (56) of sexual weakness, fourteen (14) cases of sexual weakness associated with a spontaneous ejaculation (occurs without any sexual arousal) (table 3).

Twenty-point seven percent (20.7%) said they had had an accident on the highway or falling from their motorcycle under the effects of tramadol. These accidents were often caused at doses of 750 to 2500 mg. Nearly 3 out of 7 (41.4%) of our respondents have said they had tried to stop 2 to 4 times the use of tramadol without success. The withdrawal effects most mentioned were sleep disturbances in 77.5% cases, nervousness in 73.9% cases, and a stomach cramp in 60.4% cases (Table 4).

### Table 3: Other sides effects

<table>
<thead>
<tr>
<th>Effects</th>
<th>Number of cases</th>
<th>Minimum appearance dose (mg)</th>
<th>Maximum appearance dose (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appetite stimulation</td>
<td>4</td>
<td>100</td>
<td>500</td>
</tr>
<tr>
<td>Sexual weakness</td>
<td>56</td>
<td>100</td>
<td>2500</td>
</tr>
<tr>
<td>Sexual and spontaneous ejaculation weakness</td>
<td>14</td>
<td>600</td>
<td>2500</td>
</tr>
</tbody>
</table>

### Table 4: Distribution of respondents based on withdrawal effects

<table>
<thead>
<tr>
<th>Withdrawal effects</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muscle aches</td>
<td>54.9%</td>
</tr>
<tr>
<td>Sleeping troubles</td>
<td>77.5%</td>
</tr>
<tr>
<td>Nervousness</td>
<td>73.9%</td>
</tr>
<tr>
<td>Stomach cramps</td>
<td>60.4%</td>
</tr>
<tr>
<td>Headaches</td>
<td>1.8%</td>
</tr>
<tr>
<td>Feeling cold</td>
<td>0.9%</td>
</tr>
<tr>
<td>Intense asthnia</td>
<td>18.9%</td>
</tr>
</tbody>
</table>

### Discussion

#### Challenges and limitations of the study

Our study was a cross-sectional survey of motorcycle taxi drivers in the city of Lomé consuming tramadol. Despite the difficulty to have access to tramadol misuse area and the reluctance of some motorcycle taxis drivers to answer our questions, this study has highlighted the dangers of the misuse of tramadol on the consumer and in population.

#### Demographics

All respondents’ motorcycle taxi drivers were male in our study. This could be related to the male-dominated nature of motorcycle taxi driver activity which is very hard and painful for the female gender. The average age of respondents was 32.7 years with a range of 18 and 50 and a high proportion of married and or couples. The representation of all ages in this activity is due to the quest for financial resources in order to meet their needs and those of their families. Unemployment was also reported by Amadou [4] in his study as a main entry motivation in this profession. The majority of respondents had high school level followed by a primary level of education. The initiation to consumption of tramadol was induced by friends in 44.2% of cases. This would explain the ignorance of dangers of misuse use of tramadol. More than 3 out of 4 respondents (79%) earned between 2,000 and 5,000 CFA per day in this activity. This explains the number of motorcycle taxi drivers still growing in our communities.

### Misuse of tramadol

Motorcycle taxi drivers mostly take tramadol without prescription (84.7%) and in the street (96.4%). The daily purchase tramadol expenditure reported by respondents averaged 367 FCFA, with a range of 100 to 1200 CFA francs. Tisseron (2017) reported in his study that the price of a tablet of Tramadol was between 150 and 200 CFA [9]. The easy accessibility of tramadol, especially financially, is a factor that favors its misuse and explains its success as a means of addiction. Despite the measures put in place, illegal trafficking of products is a real public health problem in sub-Saharan Africa where borders are porous and where trade street drugs are a lucrative business and on growing. Ongoing public awareness and mass campaigns are a real alternative to this scourge.

Tramadol is an analgesic morphine which would explain its use by force workers in order to feel stronger (93.7%) followed by analgesic effect (91%) and stay awake (85.6%). Our results are consistent with a study conducted in 2013 in Niger, where the performance improvement to physical work, prevention and treatment of work-related fatigue were reported [5]. Ferrari et al., in 2014 have reported the increase mood and euphoria brought by taking tramadol at a patient had no history of drug abuse or alcohol [11].

Tramadol has been reported in our study as improving sexual performance (84.7%). Abdel-Hamid et al., in 2016, reported earnings of tramadol on premature ejaculation and could be a useful alternative in the treatment of the latter [12]. Yang et al., in 2013, have also reported the significant increase in ejaculation latency after treatment with tramadol [13]. This result explains the 27% of cases of initiation of tramadol consumption made by the girls in our study. Delays of appearance of tramadol effects have been to the average of 5.8 minutes with an average of 15.4 hours of time duration of effect on the body. These
results may explain the daily pattern consumption of 92% found with daily doses of 50 to 2500 mg in order to increase their ability to work because the effects do not last for days. Daily use has also been reported in Niger [5]. This practice is not without adverse effects on the body. Thus, in our study, adverse effects such as sleep disturbance (69.4%), rash (67.6%), dizziness (62.2%), headache (60.3%), nausea and vomiting (58.9%), seizures (33.3%) have been reported. The seizures were reported by Gardner et al., in 2000 as uses complications [14]. Adverse reactions, nausea, somnolence, dizziness and fatigue have been reported by Cossmann et al., in 1997 in their monitoring studies of opioids. [15] These results could be explained by the growing rate of the highway accidents encountered in our circles involving taxi drivers and motorcycle taxi. Thus, 20.7% of our respondents said they had an accident under the effects of tramadol and often provoked at doses of 750 to 2500 mg. Bissa et al., in 2015 reported that the two-wheel (motorcycle taxi, personal motorcycle) were the main causes of accidents on public roads in 90% of cases [16]. Opioids were reported at 37.3% as the most commonly used by Iranian illicit drug drivers involved in fatal car accidents [17]. “Rush” beverage and the coffee has been reported as substances used with tramadol. The combination of taking tramadol with these substances has also been reported in the literature [6, 7, 9]. However, we believe that these substances potentiate the effects of tramadol increasing adverse effects and their toxicity on the body.

To avoid the withdrawal effects such as sleep disorders (77.5%), nervousness (73.9%), stomach cramps (60.4%), muscle pain (54.9%), asthenia (18.9%) and headache (1.8%) reported in this study, doses have been increased regularly (92%). This result confirms that tramadol can induce a tolerance. 41.4% of our respondents said that they had tried to stop 2 to 4 times the use of tramadol without success. This impossible consumption shutdown would mean the emergence of addiction to tramadol among our respondents.

**Profile of a motorcycle taxi driver tramadol consumer**

**Identity**
This is a young adult of 36 years old, educated and married with an average of 5 people in charge.

**General signs**
He eyes were red and sunken with drawn. The skin was waxed dark or darker with traces of rashes. He has a poor hygiene and bad clothing

**Psychic signs**
His mood can be manifested in kindness or euphoria or outright aggression after taking the product. Very suspicious and a little paranoid, he was struggling to keep on site once the product is taken. He was always doing something, as exemple cleaning his bike. Addicted to games, it was difficult to convince him during a discussion.

**Conclusion**
The misuse of tramadol is true within the motorcycle taxi workers. The involvement of the misuse of these drugs is not without consequences both for the health of workers and on the road safety. The illicit sales of drugs in the city of Lome accentuate the misuse of tramadol. The fight against drug counterfeiting and delivering of tramadol after medical prescription will help to fight against this scourge.

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