Common side effects of tramadol encountered in a private rheumatology clinic

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Short report

Abstract:

Background: Tramadol is effective in the treatment of moderate to severe pain. It is a synthetic analgesic that acts centrally. Nausea and vomiting are the leading side effects. Respiratory depression and constipation are not as common and less pronounced compared with other opioids. When compared with other opioids, it is not usually associated with the development of tolerance, physical dependence or psychological addiction. In overdose, it induces significant neurological toxicity.
Aims: The study sets out to determine the common adverse events of tramadol in a cohort of patients attending a private rheumatology clinic in South Western part of Nigeria.
Methods: This is a study of all patients that presented with painful musculoskeletal conditions that were treated with tramadol. The side effects of tramadol noticed were documented. The study population consisted of 102 patients (72 females).
Discussion: The commonest side effect encountered was nausea and vomiting (15.6%). Respiratory depression, dependency, seizure, and dry mouth were not encountered. The only patient with postural hypotension was a known hypertensive on α-methyl dopa.
Conclusion: Nausea and vomiting are common side effects in the studied population. The use of anti-emetic (metoclopramide Hcl) was helpful in a few of them.

Key words: Tramadol, side effects, blacks, Nigeria.

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Effets secondaires communs de tramadol rencontrées dans un secteur privé rhumatologie clinique

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Rapport court

Résumé:

Antécédents: Le Tramadol est efficace dans le traitement des douleurs modérées à fortes. C'est un analgésique synthétique que les actes centralement. Des nausées et des vomissements sont les principaux effets indésirables. Dépression respiratoire et la constipation sont pas aussi courantes et moins prononcée par rapport à d'autres opiacés. Quand on le compare à d'autres opioïdes, il n'est pas normalement associé au développement de la tolérance, dépendance physique ou psychologique la dépendance. En cas de surdosage, il induit une importante toxicité neurologique.
Objectifs: L'étude vise à déterminer les événements indésirables les du tramadol dans une cohorte de patients fréquentant un privé rhumatologie clinique en partie sud-ouest du Nigéria.
Méthodes: Il s'agit d'une étude de tous les patients qui ont présenté avec une douloureuse affections musculo-squelettiques qui ont été traités avec le tramadol. Les effets indésirables de tramadol remarqué a été documentée. La population étudiée est constituée de 102 patients (72 femmes).
Discussion: la plus courante côté effet rencontrées était nausées et vomissements (15,6 %). Dépression respiratoire, la dépendance, la saisie, et bouche sèche n'étaient pas rencontrées. Le seul patient avec une hypotension orthostatique a été un hypertendus connus de α-méthyl dopa.
Conclusion: Des nausées et des vomissements sont les effets indésirables dans la population étudiée. L'utilisation des anti-émétiques (métoclopramide HCL) était utile pour quelques-uns d'entre eux.

Mots clés : **l**e Tramadol, effets indésirables, les noirs, le Nigéria.

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Introduction

Tramadol hydrochloride is a centrally acting opioid analgesic, useful in the treatment of moderate to severe pain (1). Opioids are chemical agents which exert action upon one or more of the human opiate receptors. Tramadol has a wide range of applications. It has weak agonist actions at the μ-opioid receptor, releases serotonin, and inhibits the re-uptake of norepinephrine (2,3). The adverse events profile of tramadol includes nausea, dizziness, drowsiness, tiredness, fatigue, sweating, vomiting, dry mouth and postural hypotension (4). The incidence of nausea is comparable to other opiods, while vomiting is less common (5).

Physical dependence and withdrawal syndrome is also encountered in tramadol (6), though at a lesser degree compared with the regular opioids. Both typical and atypical opiate-like withdrawal symptoms including seizures are seen in tramadol (6,7). The atypical withdrawal symptoms can be explained by the action of tramadol on serotonin and norepinephrine re-uptake. Dependence and withdrawal symptoms may include anxiety, depression and severe mood swing. Others include aggressiveness, anguish, and electric-shock-like sensations. Sympathetic over-activity manifestations like sweating, palpitation and tremors may also occur. Paraesthesia, restless legs syndrome, sneezing, , and headache may also be encountered. (8).

Materials and Methods

This study was carried out in a private adult rheumatology clinic. It was a prospective study carried out over one year (June 2010-May 2011). There were 102 patients involved with different painful musculoskeletal complaints. The age range was 35 years to 75 years. Inclusion criteria

were 1, Non-traumatic musculoskeletal pain, 2, People without previous reaction to tramadol. Excluded from the study were- 1, People with traumatic painful conditions, 2, People with bone fracture, 3, People with previous reaction to tramadol, and 4, People with inflammatory arthritis requiring special therapy.

Patients were generally placed on 50mg of tramadol three times a day. Patients were instructed to report back at the first notice of side effects. Those that presented with only nausea were encouraged to continue with the medication. Those that presented with nausea and vomiting were given an anti-emetic (metoclopramide). Those who presented with constipation were encouraged to eat vegetable and take fruits, while those who failed to respond to this dietary adverse were given laxatives (bisacodyl). Tramadol was stopped in only one patient that presented with postural hypotension.

Results

Ninety six patients were followed-up in the study, seventy two (75%) of them presented with one side effect or the other and twenty-four (25%) patients did not report any side effect and six patients defaulted from the study (four women and two men). The commonest side effects noticed was nausea and vomiting combined (15.6%), sweating and dizziness occurred in equal proportions (9.38%), tiredness occurred in 8.33%, constipation in 6.25%, and sweating in 5.21%. Postural hypotension was noticed only in one patient necessitating discontinuation of tramadol. Anti-emetic was helpful in eleven of them while tramadol was discontinued in four that were not responsive to anti-emetic. Vegetable and fruit intake was helpful in three patients that presented with constipation while the three others needed laxative. Women were generally more affected with nausea and vomiting (ten women (66.7%) to five men (33.3%), and elderly patients were affected more than the younger patients. Vomiting was noticed early at the onset of medication in almost all of them that presented with nausea and vomiting. Table 1 shows the demographic characteristic of patients, while table 2 shows the systemic side effects of tramadol in the studied population.

Table 1. Demographic characteristics of patients

Demographic characteristics	Total number n=102
Male	30
Female	72
Male: Female	1:2.4
Age range	35-75 (yrs)
Mean age	47 (yrs)

Table 2 Common systemic side effects of tramadol in the studied population.

Side effect	Number	Percentage
Constipation	6	6.25
Nausea only	12	12.5
Vomiting only	7	7.29
Nausea and vomiting	15	15.63
Sweating	5	5.21
Dizziness	9	9.38
Drowsiness	9	9.38
Tiredness	8	8.33
Dry mouth	0	0
Respiratory depression	0	0
Dependence	0	0
Postural hypotension	1	1.04
No symptoms	24	25
Total	96	

Six patients were lost to follow up

Discussion

This report is a review of the side effects profile of tramadol in a private rheumatology clinic. Tramadol is effective for the relief of moderate to severe pain. Tramadol has been favoured over true opioids due to a belief that it is less addictive and because of its relatively good adverse events profile (9). Many of the classic effects of opioids agonists are less experienced with tramadol, it is less likely to cause respiratory depression (10,11), euphoria, constipation (12), or tolerance (13).

Common side effects seen in the studied population included nausea, vomiting, nausea and vomiting combined, sweating, and tiredness. Others include dizziness, drowsiness, and postural hypotension.

Nausea and vomiting combined were the leading adverse event noticed. The use of anti-emetic (metoclopramide) was helpful in some of these patients. The initiation of oral treatment at low doses with gradual increase significantly reduces the incidence of vomiting. (14).

A case of postural hypotension was encountered. It was difficult to actually determine the cause of the patient's hypotension; the reason was that the patient was a hypertensive patient on α-methyl dopa. Hypotension can however occur with either of the medications, or may be an additive effect. Tramadol was stopped and replaced with another analgesic. Other cardiovascular events noticed with tramadol though not observed in any of these patients include tachycardia and hypertension (15).

Constipation is also less common than other opioids (12). Clinically, this advantage offers a good drug compliance with long term therapy. Constipation was however observed in six patients. Four of them did well on high fibre diet and fruits while two patients needed laxatives.

Respiratory depression, dependence, and seizure were not encountered in any of these patients. Respiratory depression is seen less commonly in comparison to other opioids (10,11). In a study involving over 21,000 patients, no clinically relevant respiratory depression was reported (4). In overdosage (16) and impaired renal function (17), respiratory depression can however occur.

Long-term intake of tramadol has a better outcome on the development of tolerance, physical dependence and psychological addiction than other opioids. Although, there is no strong evidence that the use of tramadol can induce idiopathic seizures, except possibly in overdose (18,19). The use should however be done with caution in patients with a history of epilepsy and in patients currently on selective serotonin re-uptake inhibitors (SSRIs) because SSRIs increase the risk of seizures with tramadol. Seizures in tramadol are of short duration and are easily treatable (19).

In conclusion tramadol has adverse events profile similar to other opioids and commonly include nausea, vomiting, drowsiness, dizziness, headache and dry mouth. There was reasonable evidence to suggest that nausea and vomiting were the most common adverse events. It is not however associated with clinically relevant respiratory depression.

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Conflict of interest: The authors declare no conflict of interest.

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