

Recommended by Doctor of Pharmacy, professor O.M.Kotenko

UDC 615.212.7.004.14

PECULIARITIES OF PRESCRIBING AND USE OF OPIOIDS IN PALLIATIVE CARE MOBILE TEAMS

N.O.Datsiuk, D.S.Volokh, N.V.Sholoyko

Bogomolets National Medical University

Key words: palliative care; opioids; palliative care mobile teams

Despite the widespread recognition of the importance of opioid analgesics for the treatment of moderate to severe pain in oncology and in the palliative care in many countries the adequate pain relief and availability of opioids for medical purposes is still a problem. To analyze prescribing and use of opioids for palliative patients, the data of 43 patients treated by mobile palliative care teams in Western Ukraine have been collected. The results obtained have been compared with international guidelines of pain relief and use of opioids in palliative care. It was determined that 60.5% of patients consumed opioids for 44 days on average; more than half of cancer patients received morphine, usually at the end of life. Opioids prescribed for pain relief were: tramadol – to 48.8% patients, morphine or omnopon – to 39.5%; nalbuphine – to 9.3%; promedol – to 7.3%. Only one third of the patients administered opioids orally. Morphine drugs were received by 54.8% of cancer patients, an average daily consumption of morphine was 26.17 mg and the average duration of administration 9.82 days. Most patients received morphine and omnopon 2 or 3 times a day. Prescriptions of morphine started with a single injection of 10 mg of injection morphine (or 11.5 mg in the case of omnopon injection). A limited range of opioids and peculiarities of providing these medicines to patients in Ukraine restricted the application of pain relief in accordance with international guidelines: prescribing oral forms of opioids at first; introduction of opioids at fixed intervals of time; titrating the dose.

An integral component of palliative care (PC) is the pharmacotherapy of pain [4, 10]. According to research 80% of cancer patients and 50% of AIDS patients at the last stages of life suffer from severe pain [10]. Severe pain is also common in patients with cardiovascular diseases, chronic obstructive pulmonary and renal diseases [9].

Opioid analgesics (OA), particularly morphine, are the basis of pharmacotherapy of pain in treating progressive incurable diseases [5, 8]. Despite the widespread recognition of importance of opioids for the treatment of moderate to severe pain in cancer patients and in PC, in many countries the adequate pain relief and opioid availability for medical purposes is still a challenge [7]. Several studies indicate the inadequate pain relief of palliative patients in Ukraine [2, 3, 10].

Materials and Methods

To analyze prescribing and use of opioids for palliative patients, the data of 43 patients treated by mobile palliative care teams in Western Ukraine in 2011-2012 were studied (the information was collected as a part of the study of evaluation of the costs of palliative care mobile teams supported by IF “Renaissance”). Drug consumption data were obtained from the patients’ cards and data logging systems of mobile teams. The results obtained were compared with the international guidelines of pain relief and use of opioids in palliative care [5, 6, 8].

Results and Discussion

In the study group the number of men and women was almost the same – 51% and 49%, respectively. The average age of patients was 65.4 years old. The average number of days of care was 70.7 days; 72% (31) patients had cancer. The part of the patients who received

opioids was 60.5% (26). Among them 25 patients with cancer, and one patient with acute cerebrovascular accident. The average period of caring was 44 days. The average period of receiving opioids was 20.69 days, which was almost half (47%) of the average caring period of mobile teams. Opioids prescribed for pain relief were: tramadol – to 48.8% patients, morphine or omnopon – to 39.5%; nalbuphine – to 9.3%; promedol – to 7.3%.

Only one third of the patients (9) administered opioids orally – tramadol in capsules. All other patients received injections. According to the international recommendations of pain relief, oral forms must be the first line of therapy, and only if impossible, then injections

Table 1

Schemes of opioids prescribing

Medicine	The number of patients
Tramadol	6
Nalbuphine	1
Tramadol → morphine or omnopon	12
Tramadol → promedol → morphine or omnopon	1
Nalbuphine → tramadol → morphine	1
Nalbuphine → nalbuphine + tramadol	1
Nalbuphine + tramadol	1
Morphine or omnopon	2
Promedol → morphine	1

«→» – withdrawal of the previous opioids and administration of another one; «+» – use of several opioids per day.

Table 2

Consumption indicators of Opioids

Indicator	Mean	Standard deviation	Median	Interval
The number of days of care	44.0	32.4	41	12-131
The number of days of opioids intake	20.69	15.67	17	5-69
The number of days of morphine use (morphine, omnopon)	9.82	5.64	8	2-23
The number of days of tramadol intake	15.05	16.43	9.5	3-72
Daily consumption of morphine per capita	26.17	5.86	23	20-40

should be given [5, 8]. A widespread use of injectable opioids for pain relief in Ukraine is caused by the limited range of drugs in Ukraine, such as a long term absence of oral morphine, as well as by no practice of using such drugs as codeine in tablets, buprenorphine sublingual tablets, transdermal patches for pain relief [1, 2, 10].

When analyzing the use of opioids several schemes of prescriptions were distinguished (Tab. 1). According to the international recommendations drugs for cancer pain management should be prescribed in steps depending on the degree of pain – from weak to strong opioids. Analysis of prescriptions of opioids to palliative patients has shown that tramadol – 21 patients was the most frequently prescribed. Fourteen of these patients were transferred from the second to the third step of the pain relief ladder (started to receive morphine or omnopon or promedol). Three patients were immediately included in the third step of the pain relief ladder, and strong opioids (morphine, omnopon, promedol) were prescribed to them. Four patients received injections of nalbupine within 6-40 days.

It is worth noting that nalbupine is not currently recommended by international organizations for pain relief in palliative care. Its widespread use in the treatment of chronic pain can be explained by the fact that this drug is not included in the list of narcotic drugs, psychotropic substances and precursors, and therefore, it is not under measures of specific control.

According to research in palliative care 80% of cancer patients at the later stages require 75 mg of oral morphine (which is equivalent to 25 mg of the injection one) for 90 days. In our study 17 patients received morphine (morphine hydrochloride or omnopon), representing 54.8% of all patients diagnosed with cancer. The average duration of morphine treatment was 9.82 days (or 18.05 days if we assume that two patients receiving morphine drugs from the first day of caring by the mobile team received them earlier and the total duration was 90 days). The average daily consumption of morphine was 26.17 mg per capita. The maximum daily dose of morphine was 40 mg per day (Tab. 2).

According to the international guidelines one of the principles of effective pain relief is intake of opioids “by the clock”, i.e. at fixed intervals of time. The next dose should be taken until the full effect of the previous dose disappears. Thus, the morphine drugs should be administered to the patient every four hours. Typically, patients received morphine and omnopon 2 or 3 times a day. Only one patient received an injection of morphine 4 times a day. Intake of opioids at fixed interval of time to palliative patients is limited due to the fact that patients received by own and / or with the help of relatives only oral tramadol, nalbupine injection and in one case tramadol injection. In all other cases, the injections of opioids were given by the medical personnel of ambulances or nurses from the polyclinic, and thus visiting all patients by medical staff several times a day is impossible in the context of efficiency and costs.

The absence of morphine in tablets in 2011-2012 led to a situation when all prescriptions of this drug to patients started with 10 mg of injectable morphine (or 11.5 mg in the case of omnopon injection), being equivalent to 20-30 mg of oral morphine. According to the international recommendations the starting dose of morphine should be 5 mg of immediate release morphine *per os* every four hours (20-30 mg per day) with the following titration of the dose till the symptoms relief [6, 8].

CONCLUSIONS

1. The rational prescribing of opioid analgesics is a key principle of pain relief in palliative care. Thus, 60.5% of patients caring by the mobile palliative care teams received opioids. More than half of cancer patients received morphine, usually at the end of life.

2. Opioids were prescribed by the three-stage scheme of pain relief recommended by the WHO. Thus, the basis of prescriptions was solutions for injection. But it is incompliant with the international guidelines concerning the use of oral opioids as the first line treatment.

3. A limited range of opioids and peculiarities of providing these medicines to patients in Ukraine restricted the application of pain relief in accordance with international guidelines.

REFERENCES

1. Громовик Б.П., Прокіп С.Є. // *Укр. журн. клін. та лабораторної медицини.* – 2012. – Т. 7, №1. – С. 23-27.
2. Дацюк Н.О. // *Фармац. журн.* – 2012. – №5. – С. 16-19.
3. Досвід лікування хронічного больового синдрому у інкрабельних онкологічних хворих у відділенні паліативної медицини КМКОЦ / О.М.Клюсов, О.В.Калачов, І.Р.Кужель, Ю. Ковтун: *Матер. І Нац. конгр. з*

паліативної та хоспісної допомоги (Ірпінь, 26-27 вересня 2012 р.) – К.: ВГО «Українська ліга сприяння розвитку паліативної та хоспісної допомоги», МОЗ України, 2012. – С. 58.

4. Князевич В.М., Митник З.М., Губський Ю.І. // Україна. Здоров'я нації. – 2009. – №3 (11). – С. 55-62.
5. *Cancer Pain Relief: With a Guide to Opioid Availability. Second ed.* – Geneva, Switzerland: World Health Organization, 1996. – 63 p. Available at: <http://whqlibdoc.who.int/publications/9241544821.pdf>
6. *Control of pain in adults with cancer: A national clinical guideline.* – SIGH 106, November 2008. – 71 p.
7. *Improving Global Opioid Availability for Pain & Palliative Care: A Guide to a Pilot Evaluation of National Policy.* – PPSG, December 2013. – 175 p.
8. *Opioids in palliative care: safe and effective prescribing of strong opioids for pain in palliative care of adults. Clinical Guideline.* – NICE, May 2012. – 20 p.
9. Solano J.P., Gomez B., Higginson I.J. // *J. of Pain and Symptom Management.* – 2006. – Vol. 31, №1. – P. 58-69.
10. *Uncontrolled Pain. Ukraine's Obligation to Ensure Evidence-Based Palliative Care.* – Human Rights Watch, 2011. – 99 p.

ОСОБЛИВОСТІ ПРИЗНАЧЕННЯ ТА СПОЖИВАННЯ ОПІОЇДНИХ АНАЛГЕТИКІВ У ВІЇЗНИХ БРИГАДАХ ПАЛІАТИВНОЇ ДОПОМОГИ

Н.О.Дацюк, Д.С.Волох, Н.В.Шолойко

Ключові слова: паліативна допомога; опіоїдні анальгетики; віїзні бригади паліативної допомоги
Незважаючи на широке визнання важливості опіоїдних анальгетиків (ОА) для лікування помірного та сильного болю в онкології та при наданні паліативної допомоги, у багатьох країнах адекватне знеболювання та доступність опіоїдів для медичних цілей все ще залишається проблемою. З метою аналізу призначення та споживання опіоїдів паліативними пацієнтами були зібрані дані у 43 пацієнтів віїзних паліативних бригад, що функціонують у Західній Україні. Отримані результати вивчено у порівнянні з міжнародними рекомендаціями щодо знеболювання та застосування опіоїдів при наданні паліативної допомоги. Визначено, що 60,5% пацієнтів споживали ОА в середньому протягом 44 днів; препарати морфіну отримували більше половини онкологічних пацієнтів, як правило, наприкінці життя. Для знеболювання призначалися наступні ЛЗ: трамадол – 48,8% пацієнтам, морфін або омнопон – 39,5%; налбуфін – 9,3%; промедол – 7,3%. Лише третина пацієнтів отримувала ОА перорально. Препарати морфіну отримували 54,8% пацієнтів з діагнозом рак, при цьому середнє добове споживання морфіну становило – 26,17 мг, а середня тривалість прийому – 9,82 дні. Більшість пацієнтів отримувала морфін та омнопон 2 або 3 рази на день. Призначення препаратів морфіну розпочинали з одноразового введення 10 мг ін'єкційного морфіну (або 11,5 мг у випадку ін'єкції омнопону). Обмежений асортимент ОА та особливості призначення цих лікарських засобів в Україні гальмували надання знеболення паліативним хворим згідно з міжнародними рекомендаціями, а саме: призначення пероральних форм ОА, введення препаратів через рівні проміжки часу, титрування дози.

ОСОБЕННОСТИ НАЗНАЧЕНИЯ И ПОТРЕБЛЕНИЯ ОПИОИДНЫХ АНАЛЬГЕТИКОВ В МОБИЛЬНЫХ БРИГАДАХ ПАЛЛИАТИВНОЙ ПОМОЩИ

Н.А.Дацюк, Д.С.Волох, Н.В.Шолойко

Ключевые слова: паллиативная помощь; опиоидные анальгетики; мобильные бригады паллиативной помощи

Несмотря на широкое признание важности опиоидных анальгетиков (ОА) для лечения умеренной и сильной боли в онкологии и при предоставлении паллиативной помощи, во многих странах адекватное обезболивание и доступность опиоидов для медицинских целей все еще остаются проблемой. С целью анализа назначения и потребления опиоидов паллиативными пациентами были собраны данные 43 пациентов выездных паллиативных бригад, функционирующих в Западной Украине. Полученные результаты изучены в сравнении с международными рекомендациями по обезболиванию и применению опиоидов в паллиативной помощи. Определено, что 60,5% пациентов принимали ОА в среднем в течение 44 дней; препараты морфина получали более половины онкологических пациентов, как правило, в конце жизни. Для обезбоживания назначались следующие лекарственные средства: трамадол – 48,8% пациентам, морфин или омнопон – 39,5%; налбуфин – 9,3%; промедол – 7,3%. Лишь треть пациентов получала ОА перорально. Препараты морфина получали 54,8% пациентов с диагнозом рак, при этом среднее суточное потребление морфина составило – 26,17 мг, а средняя продолжительность приема – 9,82 дня. Большинство пациентов получало морфин и омнопон 2 или 3 раза в день. Назначение препаратов морфина начинали с однократного введения 10 мг инъекционного морфина (или 11,5 мг в случае инъекции омнопона). Ограниченный ассортимент ОА и особенности назначения этих лекарственных средств в Украине ограничивали предоставление обезболивания паллиативным больным в соответствии с международными рекомендациями, а именно: назначение пероральных форм ОА, введения препаратов через равные промежутки времени; титрование дозы.