

STUDY OF PAIN MEDICINE USAGE IN MONGOLIAN HOSPICES

Nyam-Od Galsanjams, Odontuya Davaasuren

Mongolian National University of Medical Sciences

Ulaanbaatar, Mongolia

Resume. We provided cross-sectional study within 170 patients with cancer, hospitalized in hospices of Mongolia and conducted evaluation of pain and its treatment by WHO recommendation. Mongolian hospices used mild opioids more (55.5%), than severe opioids (24.7%), and NSAIDs (19.8%). 91% of patients used oral pain medicine. In Mongolian hospices 81.8% of patients had no pain after treatment according the WHO recommendation, and just 16.5% of patients still had mild pain and 1.7% of patients had moderate pain. We found out that Mongolian hospices manage the pain appropriately to the WHO recommendation.

Key words: pain, cancer, palliative care, morphine, opioids.

ИЗУЧЕНИЕ ИСПОЛЬЗОВАНИЯ БОЛЕУТОЛЯЮЩИХ ЛЕКАРСТВ
В МОНГОЛЬСКИХ ХОСПИСАХ

Ням-Од Галсанжамц, Одонтуя Даваасурэн

Монгольский государственный университет медицинских наук

Улаанбаатар, Монголия

Резюме. Мы провели перекрёстное исследование среди 170 пациентов с раком, госпитализированных в хосписах Монголии и провели оценку боли и соответствие её лечения с рекомендацией ВОЗ. Монгольские хосписы использовали слабые опиоиды больше (55,5%), чем сильные опиоиды (24,7%), и НПВС (19,8%). 91% пациентов использовали оральные обезболивающие лекарства. В Монгольских хосписах 81,8% пациентов не страдали от боли после лечения по рекомендации ВОЗ, и только 16,5% пациентов всё ещё имели слабую боль и 1,7% пациентов страдали от умеренной боли. Мы выяснили, что Монгольские хосписы лечат боль согласно рекомендации ВОЗ.

Ключевые слова: боль, рак, паллиативная помощь, морфин, опиоиды.

Introduction.

56 million people die in the World every year and 40 million of these patients die with need of palliative care [1]. The population in Mongolia is about 3 million. 16494 people died in Mongolia in 2014, 60% of them (9897) died with need of palliative care [2]. 5483 new cases of cancer registered in 2014 and 3536 patients died because of cancer [3]. Cancer patients need palliation of pain in all stage of diseases. One third of cancer patients had mild to moderate pain in early stage of disease, but in the late stage of cancer two third of patients had severe pain [4, 5].

Cancer caused chronic pain syndrome and decreased quality of life of palliative care patients. Treatment of pain by WHO recommendation, 5 principles and three ladders allows palliating cancer pain in 70-90% of cancer patients. WHO recommends using the pain medicine by mouth, by clock, by ladder, by individual needs, and by considering all details. WHO recommends using oral pain killers to 80-90% of cancer patients [4, 5, 6, 7, 8, 9]. In Mongolia we have 90% of essential drug from the list of essential for palliative treatment [10]. But we don't know how many patients have mild, moderate and severe pain and how many patients need mild, moderate and strong pain medicine. For this reason we decided to study usage of pain medicine in Mongolian hospices and, compliance our treatment with recommendation of WHO.

Materials and methods of study.

We provided cross-sectional study within 170 patients with cancer, hospitalized in hospices of Ulaanbaatar: 55 patients in palliative care department of NCC, 31 patients in Hope Hospice, 64 patients in Green home Hospice, 20 patients in Grace Hospice. We provided assessment of pain severity by Wong Baker pain scale. We conducted evaluation of pain and its treatment with correlation with WHO recommendation.

Results of study were statistically analyzed by the SPSS 19 ба Excel program.

Results of study.

In our study we included patients with different cancer. 41.8% were patients with liver cancer, 14.1% - patients with

stomach cancer, 12.4%- cervical cancer, 8.2% - lung cancer, 3.5%- esophageal cancer. The frequency of main 5 cancer in our study was similar to the frequency of cancer in Mongolia.

All cancer patients with pain included in our study had chronic pain (100%). 80% of cancer patients had constant pain and 11.8% of them had breakthrough pain.

Hospices in Mongolia used pain medicine orally in 90% of cancer patients, which is consistent with the WHO recommendation.

Mongolian hospices used mild opioids more (55.5%), than severe opioids (24.7%), and NSAIDs (19.8%). Hospices use injectable form of severe opioids more frequently (24%), than injectable forms of mild opioids (0.9%) and NSAIDs (5.5%). 29.4% of cancer patients in hospices had neuropathic pain, 32.4% of patients had mixed pain, and had bone pain. For this reason, hospices used adjuvants – co-analgesics like Dexamethasone, Gabapentine, Amitriptilline, Clodronate.

Treatment of pain palliative care cancer patients according the WHO recommendation palliated 81.8% of patients pain and just 16.5% of patients still had mild pain and 1.7% of patients had moderate pain after treatment.

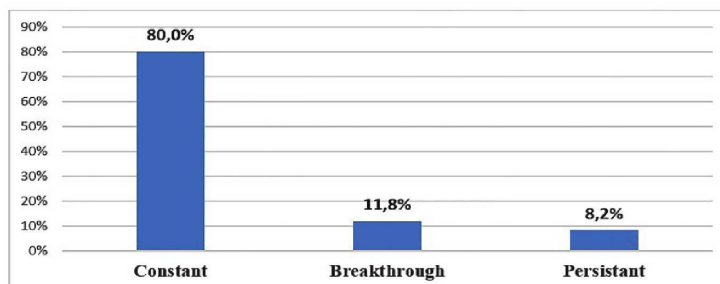
Discussion

In WHO guide “Cancer pain relief” was written that cancer patients need pain relief at all stage of the disease. Pain occurs in about one-third of patients receiving anticancer treatment. In patients with advanced disease, more than two-thirds experience pain, and the management of pain and other symptoms becomes the main aim of treatment [4, 5, 6, 7, 8, 9].

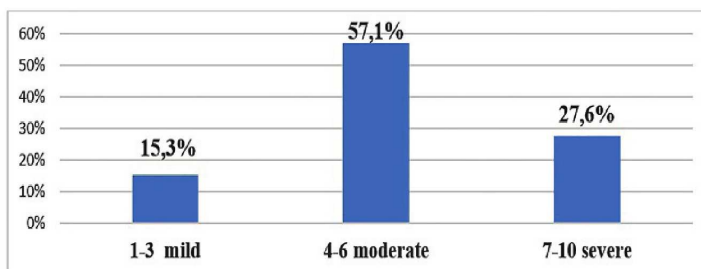
Weiss SC, Emanuel LL, Fairclough DL, at all., provide pain study within 988 patients. 50% of 988 terminally ill patients reported pain. Of those experiencing moderate or severe pain, 29% wanted more therapy, 61% wanted therapy to remain the same, while 9% wanted less therapy or to stop their pain treatment altogether [11]. Levy M H conducted study on pharmacological treatment of pain. Thirty percent of patients with cancer have pain at the time of diagnosis, and 65 to 85 percent have pain when their disease is advanced. Cancer pain can be effectively treated in 85 to 95 percent of patients

Table 1.
Cancer diagnosis within palliative care patients with pain

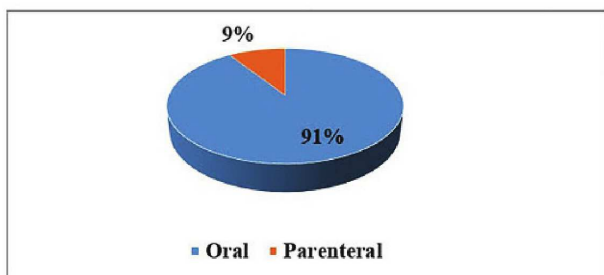
Cancer	Number and % of patients	
	N	%
Liver	71	41.8%
Stomach	24	14.1%
Cervix	21	12.4%
Lung	14	8.2%
Esophagus	6	3.5%
Breast	3	1.8%
Colon	3	1.8%
Pancreas	6	3.5%
Kidney	2	1.2%
Ovarian	4	2.4%
Bone	3	1.8%
Prostate	1	0.6%
Brain	4	2.4%
Nasopharyngeal	1	0.6%
Lymphatic	1	0.6%
Rectal	3	1.8%
Caposi	1	0.6%
Leukemia	2	1.2%
Total	170	100%



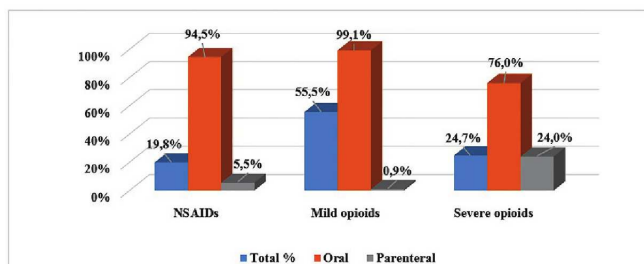
Graphic 1. Frequency of constant, resistant and breakthrough pain within cancer patients



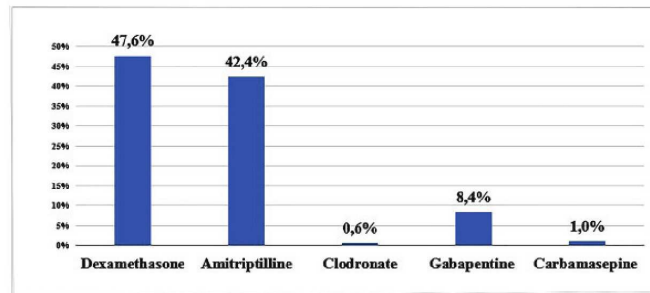
Graphic 2. Severity of pain within cancer patients 15.3% of cancer patients had mild pain, 57.1%- had moderate pain, 27.6% had severe pain



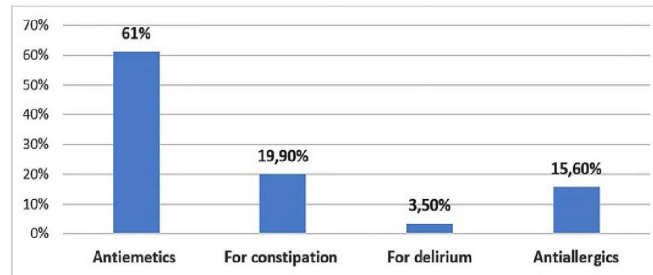
Graphic 3. Methods of usage of pain medicine



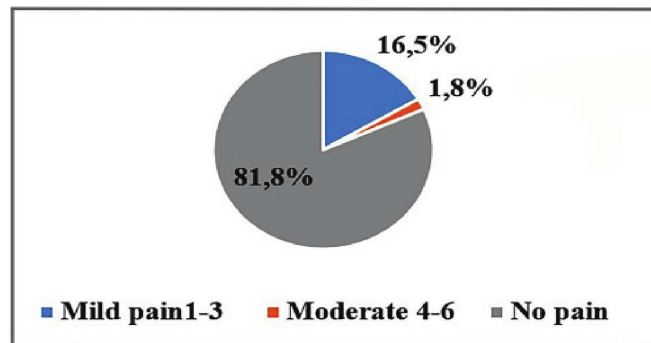
Graphic 4. Usage of NSAIDs, mild and severe opioids for cancer patients



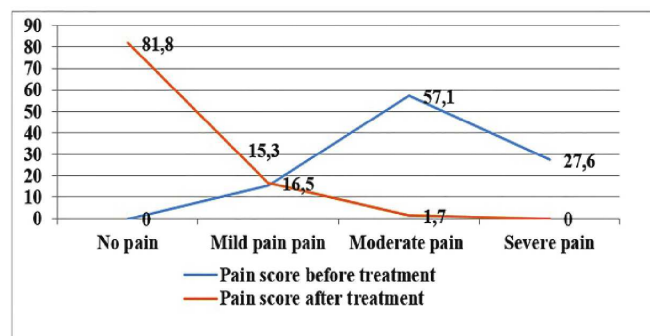
Graphic 5. Usage of adjuvant co-analgesics for patients with cancer pain



Graphic 6. Usage of adjuvant for treatment of side effects of pain killers



Graphic 7. Pain score after usage of pain medicine



Graphic 8. Pain score before and after treatment of pain using pain medicine according to the WHO recommendation

Table 2.
Duration of pain and pain score after diagnosis of cancer within 170 palliative care patients in Mongolian hospices

Pain score	Mean months	Deviation
No pain	5.4	± 6.4
Mild pain 1-3	8.4	± 6.7
Moderate pain 4-6	7.7	± 6.8
Severe pain 7-10	3.6	± 5.3

with an integrated program of systemic, pharmacologic, and anticancer therapy [12].

In our study we include 100% patients with pain and 84.7% of cancer patients had moderate and severe pain, which is a little bit more than WHO's "two- third of patients" (75%). Treatment according the WHO 5 principles and 3 ladders palliated in 70-90% of patients [4,5,6]. In our study in Mongolian hospices 81.8% of patients had no pain after treatment according the WHO recommendation, which is a little bit less than WHO data. WHO recommends using oral pain medicine for cancer patients with chronic pain [4, 7, 8]. In our study 91% of patients used oral pain killers, which is good example for pain treatment in palliative care.

The study Palliative Home Care Service of Hong Kong Buddhist Hospital showed that early referrals with early interventions on pain management accounted for better effective symptoms control [13]. In our study patients who referred to hospices earlier

Patients with early referral and earlier started treatment in our study lived longer than patient with late stage diagnosis and late referral, which is approved statement of Hong Kong Buddhist Hospital research.

1213 breakthrough pain events treated by IV Morphine in hospices and Jeonnam Regional Cancer Center, Republic of Korea [14], and the mean number of events per patient was 13.6 (95% confidence interval (CI) 10.5-15.4). The mean dose of IV Morphine was 13.9mg (95% CI 12.5-14.5mg, range 3-90mg) and was equivalent to 7.1% of the total daily opioid dose. For each episode, pain intensity and opioid-related symptoms were recorded at the base (T0) and within 30 minutes after (T1). Pain intensity decreased from a mean of 5.1 (on a 0-10 numeric scale) at base to 1.8 at T1. A decrease in pain of more than 30%, 50% and 70% was observed in 1179 (97.2%), 958 (78.9%) and 460 (37.9%) BTP events, respectively. In 21 episodes, no changes in pain intensity were observed and a further dose of IV-M was given [14].

Doses of more than 10mg, 30mg and 50mg of IV-M were given for 456 (37.6%), 200 (16.5%) and 104(8.6%) . No differences in age, sex and pain location were found. Adverse effects were uncommon, moderate nausea/vomiting in 32 episodes, drowsiness in 15 episodes, and confusion in one episode [14]. In our study in Mongolian hospices for palliation of breakthrough pain 31% of patients used injection of Morphine, 50% of patients used oral Morphine, тармадал тариа 9.5% of patients used injectable Tramadole, and 9.5% of patients used oral Tramadole.

The mean dose of Morphine for breakthrough pain was 6.6 mg, mean dose of Tramadole for breakthrough pain was 71.6 mg.

Conclusion

1. Mongolian hospices used mild opioids more (55.5%), than severe opioids (24.7%), and NSAIDs (19.8%). 91% of patients used oral pain killers.

2. In Mongolian hospices 81.8% of patients had no

pain after treatment according the WHO recommendation, and just 16.5% of patients still had mild pain and 1.7% of patients had moderate pain.

3. Pain management of Mongolian hospices appropriate to recommendation of WHO.

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