



Evaluation of the Prevalence, Pattern and Management of Cancer Pain in Oncology Department, the Royal Hospital, Oman.

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Abstract

Introduction

Pain is under-treated in all parts of the world. Moderate to severe pain is experienced by the majority of patients with advanced disease. The aim of this study is to evaluate the prevalence, pattern and pain management in Oman.

Methods

A prospective study was carried out during a 3 months period. We evaluated all admitted patients and only patients who were complaining of pain were eligible. Assessment of pain intensity and pain relief were done using measuring scales. All patients received pharmacological treatment according to WHO analgesic ladder.

Results

A total of 335 admissions were recorded during

the study period of which 100 patients (30%) were eligible for the study, 52% of cases were males. The mean age was 45 years \pm 16.2 years and the most common tumours were GIT and breast cancer.

Sixty four patients had pain but did not complain about it. Forty-five patients (45%) had moderate pain but they did not routinely complain about it. The mean hospital stay was 3.5 days and the range 1- 10 days.

Conclusions

Most cancer patients deny pain for various reasons. Thorough history and repeated pain assessment are very important. Following the WHO analgesic ladder is simple and effective.

Key words

Cancer Pain, Pain intensity, Analgesics.

Introduction and aim of the work

Moderate to severe pain is experienced by one-third of cancer patients receiving active therapy and by 60% to 90% of patients with advanced disease^(1,2). Pain associated with direct tumor involvement is the most common cause of cancer pain, occurring in as many as 85% of patients reported from a pain service study, and in up to 65% from an outpatient cancer center pain clinic survey⁽³⁾.

Bone pain is the most common type of pain experienced by cancer patients, with tumor infiltration of nerve and hollow viscus being the second and third most common pain locations respectively.

Cancer therapy causes pain in approximately 15% to 25% of patients receiving chemotherapy, surgery, or radiation therapy. Three percent to 10% of patients with cancer have pain caused by non-cancer-related problems, reflecting the common causes of pain in the general population⁽⁴⁾.

Pain control merits high priority for two reasons. First, unrelieved pain causes unnecessary suffering because pain diminishes activity, appetite, sleep and it can further weaken already debilitated patients. The psychological effect of cancer pain can be devastating. Patients with cancer often lose hope when pain emerges, believing that pain heralds the inexorable progress of a feared, destructive, and fatal disease. Besides mitigating suffering, pain control is important because, even when the underlying disease process is stable, uncontrolled pain prevents patients from working productively,

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enjoying recreation, or taking pleasure in their usual role in the family and society ⁽⁵⁾. Pain control therefore merits a high priority not only for those with advanced disease, but also for the patient whose condition is stable and whose life expectancy is long.

The aim of this study was to evaluate the prevalence, pattern and management of pain in patients who were admitted to the oncology ward, the Royal Hospital, Muscat, Oman.

Patients and Methods

A prospective study was carried out in the oncology department, Royal Hospital, during

a 3 months period (August-October, 2001). We evaluated all patients who were admitted to the oncology ward mainly for pain control. Patients who were admitted for other reasons and required pain control during their stay were also included.

Recording of demographic data and purpose of admission was done for all patients. Initial assessment on admission included history and physical examination, pain intensity and pain relieve were measured using a numerical, categorical, visual analogue scale and pain relieve scale (Fig. 1).

Assessment was done every 2 hours until

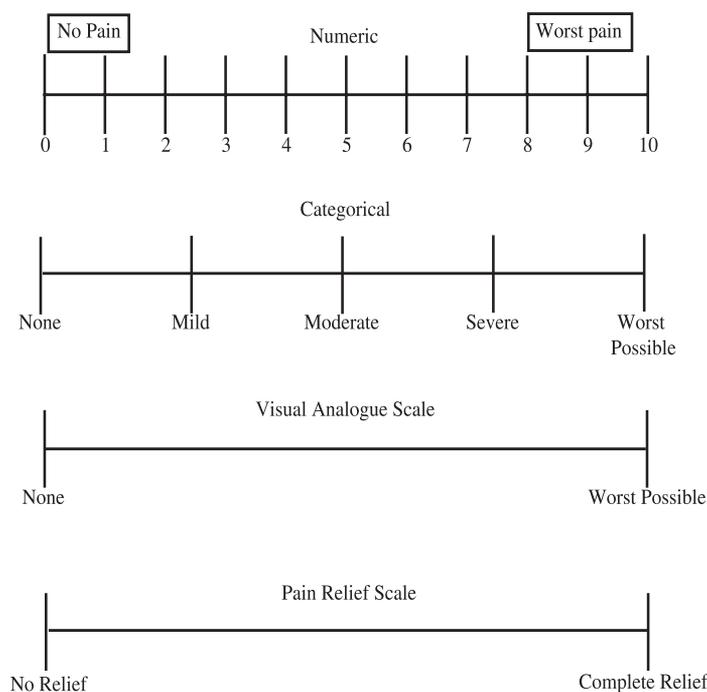


Fig. 1 :Plain intensity and pain relieve scales

pain was completely controlled. Assessment of pain relief was double-checked by physicians and ward nurses. All patients received pharmacological treatment according to WHO analgesic ladder ⁽⁶⁾ (Fig. 2) and the opioid dose were titrated to adequate relief or dose limiting toxicity ⁽⁷⁾. The opioids used were tramadol hydrochloride in a starting dose of 50mg three times a day and up to 300 mg/d according to pain intensity. Morphine (long acting MST) was used if pain was not controlled by tramadol

+ NSAIDs. Short acting morphine (oramorph) was used for breakthrough pain, and then the total breakthrough doses during 24 hours were calculated and added to the long acting doses.

Symptoms associated with opioid therapy such as nausea & vomiting, constipation, drowsiness or confusion were recorded using a scale of 0-3 (not at all, slight, a lot, awful). Time to pain relief and total period of admission were also recorded.

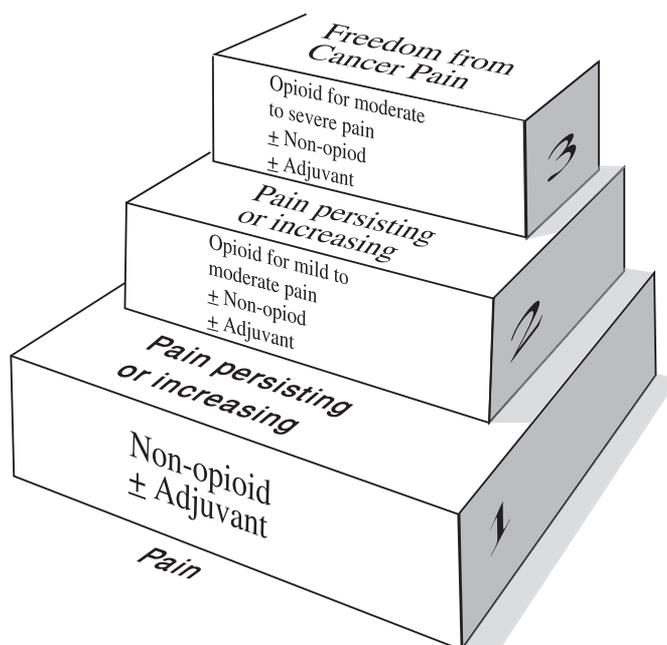


Fig. 2 :The WHO analgesic ladder

Results

A total of 335 patients were admitted to the oncology department during the period of the study, 185 patients (55%) were females and 150 (45%) were males. One hundred patients (30%) were eligible for the study. Male patients constituted 52% of cases and females 48%. The mean age was 45 years \pm 16.2 years, the median was 50 years and the range was 14-72 years. Age distribution of the studied patients is illustrated in (Fig. 3).

Distribution of the primary site of cancer among studied patients showed that GIT

(gastrointestinal tumours) was the most common malignant tumour followed by breast cancer, lung cancer, head & neck (H&N), lymphoma and female genital cancers as shown in [Fig. 4]. Sixty-five patients had metastatic disease and 35 patients were either receiving adjuvant treatment or were in remission and admitted for re-evaluation.

Thirty-six of studied patients were mainly admitted for pain control and 64 were admitted either for chemotherapy or for treatment assessment and complained of pain only when they were questioned and assessed for pain during their admission. Distribution of pain

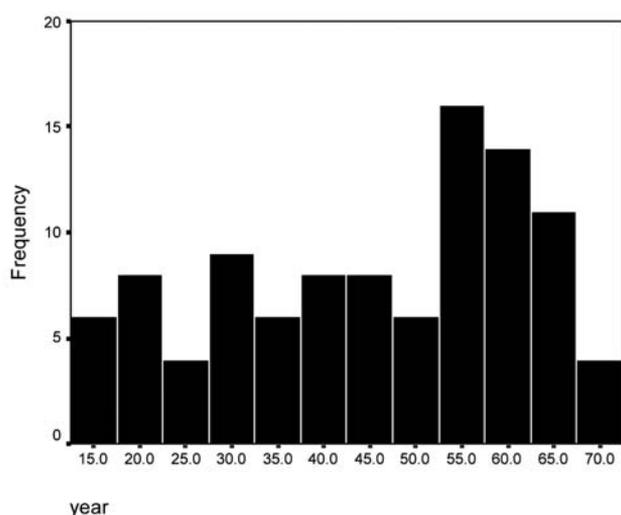


Fig. 3 :Age distribution of the studied patients

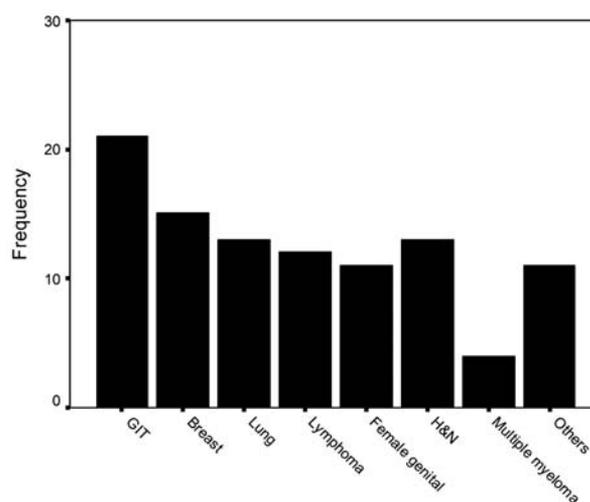


Fig. 4 :The distribution of primary malignant tumor

score was as shown in [Table 1].

Sixty four patients had pain (mild and moderate pain) and did not complain about it. Forty-five patients (45%) representing about 13% of all admitted patients were complaining of moderate pain but they did not routinely complained about it.

Evaluation of the previous medication of the studied patients is shown in [Table 2]

Patients with mild pain (19 patients) were treated with non-opioid analgesics, 14 patients with paracetamol and 5 patients with Diclofenac sodium (NSAIDs). Patients with moderate and severe pain (81 patients) were treated with opioids as following:

38 patients with tramadol + NSAIDs ± adjuvant treatment.

43 patients with morphine + NSAIDs ± adjuvant treatment, 10 of them were not controlled by tramadol + NSAIDs.

Fifteen patients started palliative chemotherapy and 7 patients had change of their palliative chemotherapy as they developed progression of their disease. Ten patients were processed for palliative radiation treatment to their bone metastasis. Six patients started or changed hormonal treatment, 5 cases had breast cancer (changed tamoxifen to Letrozol in a dose of 2.5 mg / day) and one case of prostatic cancer started LHRH (Lutinizing hormone releasing hormone agonist) with anti testosterone for two to prevent tumour flare. Patients with widespread bone metastasis (18 patients) and

those with multiple myeloma (4 patients) received bisphosphonates to help control their pain and normalize their calcium level as well.

Pain was completely controlled in 65 patients after 1 day, 20 patients on the 2nd day, 8 patients on the 3rd day, 5 patients in 4 days and 2 patients were getting pain during movement throughout their admission.

The length of Hospital stay was as follows: up to 2 days 35 patients, 3-4 days 55 patients and 5-6 days 10 patients. The mean stay was 3.5 days and the range 1- 10 days.

Nausea & vomiting Grade I&II were recorded in 18 patients and constipation in 20 patients. Seventy-four (74%) of patients were alert and orientated throughout their admission period, 20 patients were easily aroused and 6 patients were difficultly aroused.

Discussion

A cancer control program should contain, in addition to primary prevention, early diagnosis, and oncological treatment, a fourth phase aimed at preventing suffering ⁽⁸⁾.

Pain is not a simple sensation, it has a cognitive and an effective component and the perception of pain stimuli is always modified by an emotional response to that response. Three broad categories of pain have been defined: visceral e.g. hepatomegaly, somatic e.g. bones metastases and neuropathic e.g. brachial plexopathy ⁽⁹⁾.

Whilst pain is a concept to most of us, a formal definition is somewhat elusive. The

Score	Number of patients	%
Mild (0-2)	19	19
Moderate (3-5)	45	45
Servere (6-8)	30	30
Very severe (>8)	6	6

Table 1 : Distribution of pain score in the stuied patients

Previous treatment	Patients	%	Regularity
No treatment	30	30	-
Paracetamol	15	15	No
NSAIDs	10	10	No
Tramadol	22	22	No
Morphine	23	23	No

Table 2 : Previous medications of the studied patients

International Association for the Study of Pain has defined this as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage”⁽¹⁰⁾.

The oncology department (20 beds, 3 oncologists) at the Royal Hospital, Muscat, Oman, is the only tertiary oncology service in the whole Sultanate, together with 7 peripheral satellite units, providing oncology & palliative care service for a population of 2.6 million.

About 1000 new cancer cases present every year to the oncology department, the Royal hospital which is the only well established department in the whole country. The proportions of primary tumours found in this study mirrored the cancer incidence in Oman⁽¹¹⁾. Cancer patients may have many experiences of pain in their journey with the disease. The overall incidence of pain in patients with advanced cancer is 60% of which 75% will be directly related to the malignancy⁽¹⁾.

In this study, patients admitted for pain control represented 36% of studied patients and 11% of all admitted patients during the study period. But patients who were suffering of pain represented 30% of the all admitted patients which means that a good proportion of patients were denying pain. Surveys suggest that fewer than 25% of patients with advanced disease will deny the experience of pain⁽¹²⁾, for many patients the fear of cancer is the fear of pain⁽¹³⁾.

Pain is under treated in all parts of the world. Multiple barriers exist that prevent valid treatment of the pain, patient barriers to effective pain management include, reluctance to report pain, fear of distracting the physician, fear that increased pain means disease progression; concern with complaining about symptoms for fear of not being seen as a “good” patient, fears of addiction, fears of tolerance and fears of

side-effects to medications⁽¹⁴⁾. There are other barriers from the physician’s side include the six myths about opioids usage⁽¹⁵⁾:

- Addiction to opioids is a sign of depravity and should be avoided at all costs.
- If I give you morphine now, no strong pain medicine will be available later when you need it.
- Oral medications don’t work for severe cancer pain, injections are always required.
- Totally relieving cancer pain produces doped zombies unable to think or function normally.
- Pain medicine should be given as needed (P.R.N.).
- High doses of opioids act as a form of euthanasia.

In the present study, control of pain according was highly acceptable. The advantages of the WHO analgesic ladder lies in its simplicity and its universal application⁽¹⁶⁾.

We have followed the following principles:

- 1 Medications taken by mouth when possible (in 97% of studied patients).
- 2 Medications taken by the clock.
- 3 Medications are escalated according to therating of pain from mild, moderate to severe.
- 4 Medications are tailored to individual needs.
- 5 Pain is monitored and re-assessed regularly.

In summary, high percentage of cancer patients are denying pain for various reasons. Thorough history, repeated assessment of pain using pain assessment scales are helping in identifying patients complaining of pain. Following the WHO analgesic ladder is simple and effective. Continuous medical education, teaching courses of pain control for nurses and doctors are highly needed. Inclusion of the psychiatrist, social workers, physiotherapist, nurses and doctors is the best way for pain management.

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