PREVALENCE OF PAIN IN HOSPITALIZED CANCER PATIENTS IN A NIGERIAN TEACHING HOSPITAL

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ABSTRACT

BACKGROUND: Cancer has always been an important cause of pain in medical practice. In a specialized setting such as hospice, palliative care unit and hospital where such patients could receive adequate pain care, as many as 90.0% of cancer patients usually report pain relief. Therefore, the aim of this report is to determine the prevalence of pain in hospitalized cancer patients in our environment

METHODS: This is a cross sectional study involving adult cancer patients, who were hospitalized in surgical wards of Ahmadu Bello University Teaching Hospital Zaria, in the month of June, 2009. Patients completed a structured questionnaire regarding the presence or absence of pain, its degree of severity, treatment protocol he/she was currently on. Data obtained was analyzed using SPSS version 11.5.

RESULTS: In the month of June, 2009, a total of 67cancer patients were admitted in both male and female surgical wards. There were 27 (40.3%) males and 40 (59.7%) females. Age range was 17-75years (44.9mean). Fifty eight (86.6%) of the cancer patients admitted having pain as at the time of the study while 9(13.4%) had no pain. Assessment of the form of analgesia commonly used for cancer patients, revealed that 25(37.3%) were on Non Steroidal Anti-Inflammatory Drugs (NSAIDs), 18(26.9%) were not on any form of analgesia, 17(25.4%) were on weak opioids while 7(10.4%) were on strong opioids.

CONCLUSION: The prevalence of pain in hospitalized cancer patients in our environment is high and NSAIDs are the analgesic agents that are commonly used in them. Analgesia should be dictated and proportional to the intensity of pain in these patients.

KEYWORDS: cancer, pain, prevalence, hospitalized

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INTRODUCTION

Cancer is steadily becoming a more important cause of pain in the recent times[1]. Prevalence and severity of pain among cancer patients varies from region to region [2, 3]. It is generally estimated that one out of three cancer patients receiving active treatment has cancer related pain[3]. In a specialized setting such as hospice, palliative care unit and hospital where such patients could receive adequate pain care, as many as 90% of cancer patients usually report pain relief[4]. Therefore, the aim of this report is to determine the prevalence of pain in hospitalized cancer patients in our environment.

MATERIAL AND METHOD

This is a cross sectional study involving adult cancer patients, who were hospitalized in surgical wards of Ahmadu Bello University Teaching Hospital Zaria, Nigeria in the month of June, 2009. Patients were asked to complete a structured questionnaire regarding the presence or otherwise of pain, its degree of severity, treatment protocol and quality of treatment patient was currently on. The prevalence of pain was determined. Data obtained was analyzed using SPSS version 11.5

FIG 1 RELATIONSHIP OF ETHNICITY AND INTENSITY OF PAIN

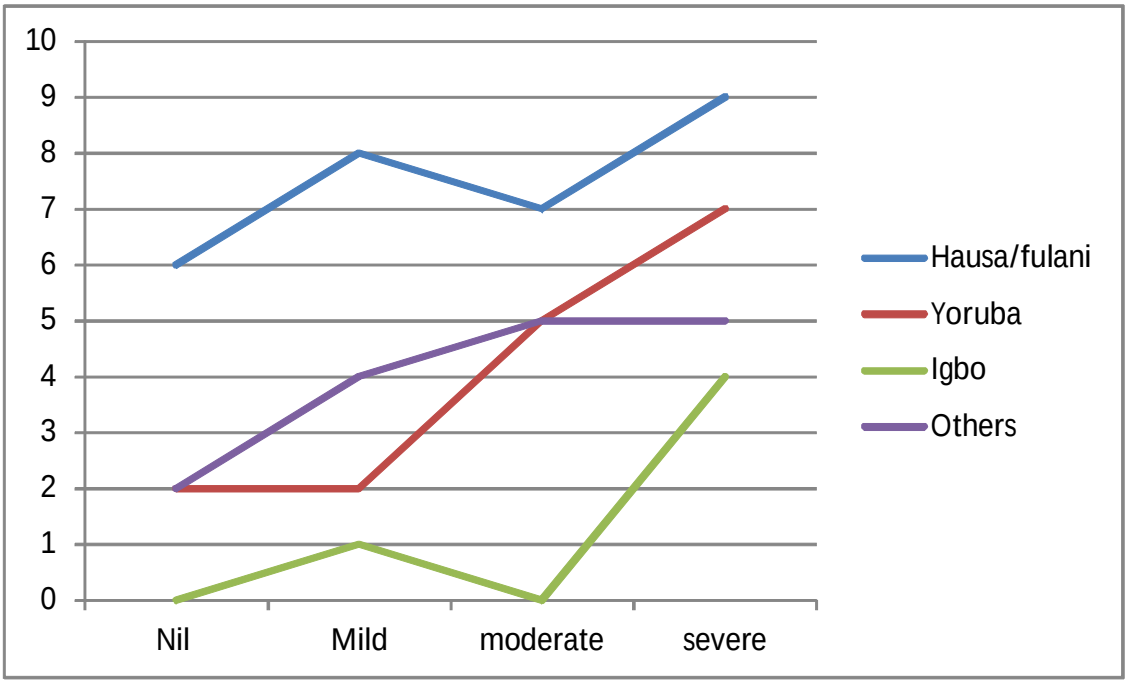


FIG 2 RELATIONSHIP OF INTENSITY OF PAIN AND STAGE OF DISEASE

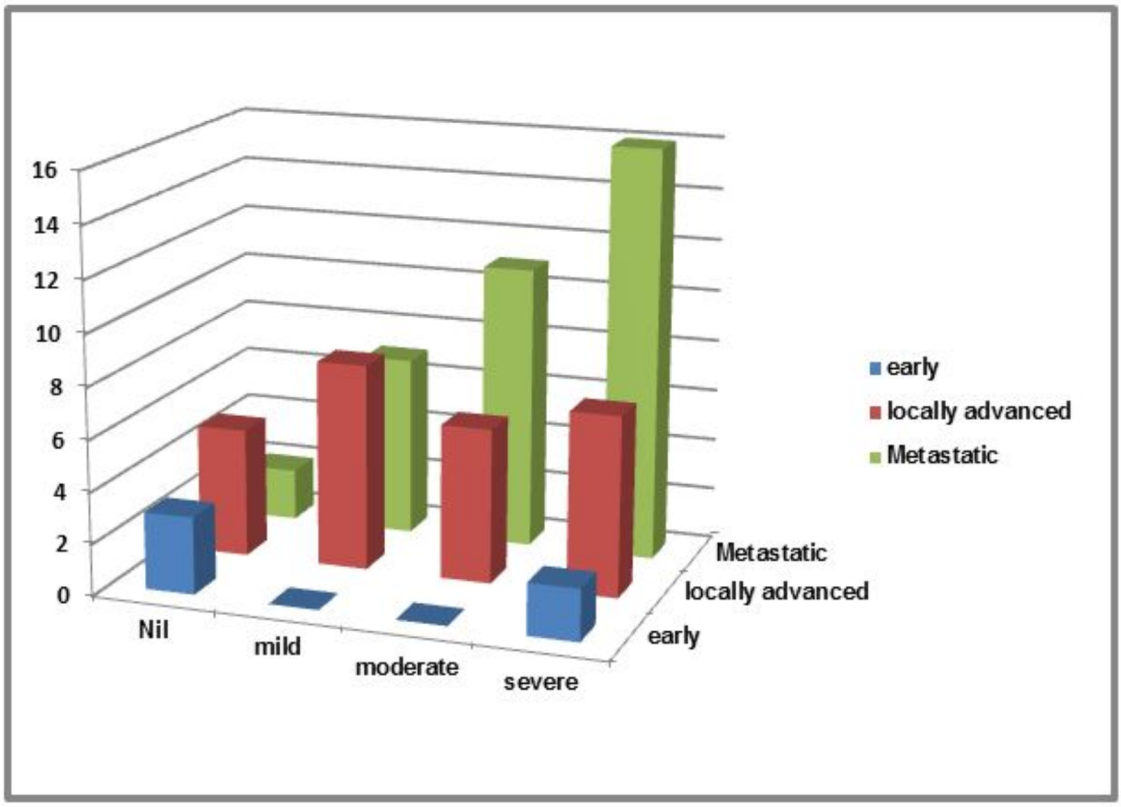
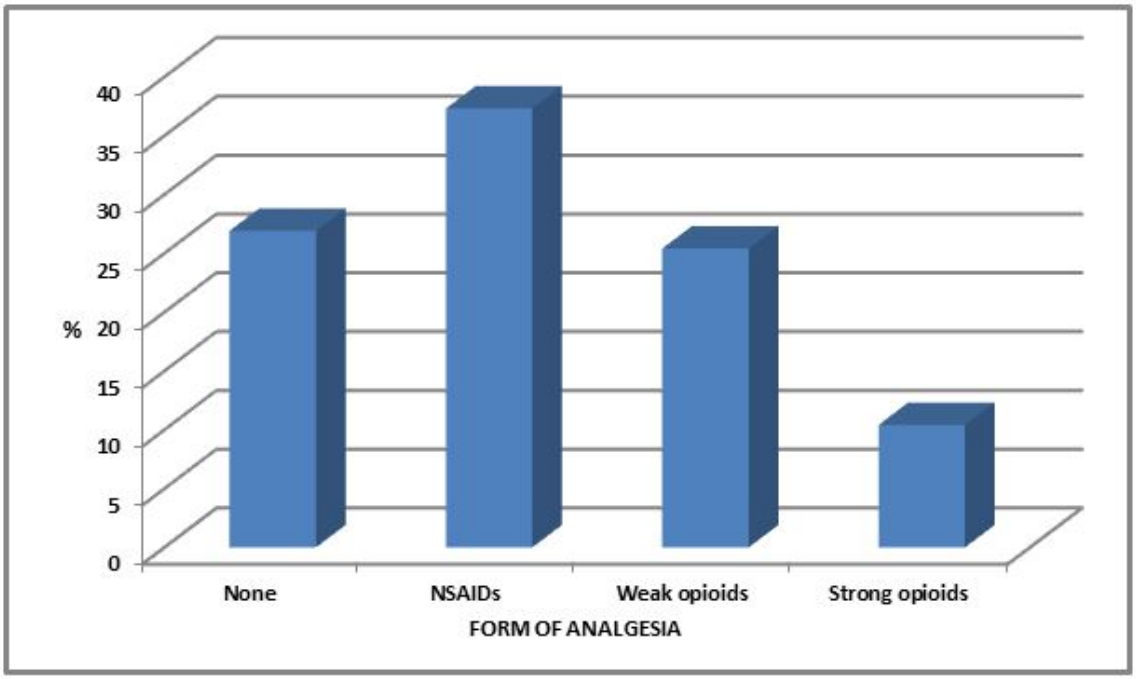


FIG 3 FORM OF ANALGESIA COMMONLY USED FOR CANCER PAIN



RESULTS

In the month of June, 2009, a total of 67cancer patients were admitted in both male and female surgical wards. There were 27 (40.3%) males and 40 (59.7%) females. Age range was 17-75years (44.9mean). Fifty eight (86.6%) of the cancer patients admitted having pain at the time of the study while 9(13.4%) had no pain.

The relationship of the intensity of pain to the ethnic groups among the patients revealed a similar response among Hausas, Fulanis, and Igbos, while in the Yoruba ethnic group, there was sharp rise after development of the mildest pain. Other ethnic groups have a fairly steady rise in the severity of pain (fig. 1).

The intensity of pain, when compared to the stage of the cancer revealed 16(44.4%) of the patients with metastatic disease to have had severe pain, 11(32.4%) had moderate pain while 7 (20.6%) had mild; in patients with locally advanced disease, 8(30.8%) of them had mild pain; 7(26.9%) had severe pain, 6(23.1) had moderate pain while 5(19.2%) had no pain. In patients with early disease 3(60%) of them had no pain while 2(40%) had severe pain (fig.2).

Assessment of the form of analgesia commonly used for cancer patients, revealed 25(37.3%) on NSAIDs, 18(26.9%) not using any form of analgesia, 17(25.4%) on weak opioids while 7(10.4%) were on strong opioids (fig.3).

DISCUSSION

Pain in cancer patients is highly prevalent clinical problem. [1, 2] Previous reports indicate that majority of patients with cancer experience pain at some point during their illness and active treatment. [3, 4, 6] In our report, majority of the cancer patients had pain as at the time of the study which is comparable to previous reports.

Substantial information regarding etiology and pathophysiology of pain has increased recently. [3, 5] Cancer pain has been described as "pain" presenting with physical, psychological, social and spiritual

components. [5] The current taxonomies of pain, most recently revised in 1994 [5] characterized pain into location, involved organ or tissue system, temporal pattern of pain, pain intensity and time since onset of pain and etiology of pain. The pain that is caused by the effect of tumor may be due to tissue infiltration, exertion of pressure to nociceptors as well as nerves. [6] Pain may be due to obstruction of luminal organs or tissue destruction by the tumor. Furthermore, recent studies [7, 8] have found evidence that generating mediators are directly released from tumor or from surrounding tissue. These are part of responses to tumor invasion and metastasis.

Cancer patients may experience discomfort following surgery or invasive procedures. [9] Also, there are numerous post surgical pain syndromes such as phantom limb pain, post mastectomy syndrome. [10] Mucositis, proctitis, enteritis, osteonecrosis and peripheral neuropathies following chemoradiation are known causes of pain in cancer patients receiving treatment.

Patients with cancer may experience discomfort as a direct consequence of a concurrent disease. For instance degenerative joint disease or diabetic neuropathy may cause severe pain in the patients. [5] Therefore it is important to review patients past medical history.

It is essential to perform a comprehensive evaluation of pain in cancer patients because the severity of cancer pain is dynamic and often, it fluctuates as the disease progresses. [11] So, in addition to detailed medical history, specific and serial evaluation of pain history is paramount to accurate evaluation of pain in cancer patients. The severity of cancer pain may reflect the size of tumor, its localization, metastasis, and extent of tissue destruction. [12, 13] In this report, majority of our cancer patients with advanced or metastatic disease appear to have had severe pain than those with early disease. This may probably, be due to the extent of tissue destruction and effect of multiple site effect from advanced disease/metastatic disease.

Pain intensity is frequently used to guide analgesic therapy but recently a better understanding of the pathophysiology of pain in cancer patients has lent support to the use of these analgesics and other drugs to complement the analgesics particularly in "failed pain control".

Pain mediators in cancer patients such as COX-2, peptide endothelin-1, nerves growth factors, interleukins, cytokines malignancy-related tissue acidosis are known to sensitize and stimulate primary afferent neurons of pain pathway[14]. Thus, inhibitors of cytokines and COX-2 have been shown to be very effective in treating pain in cancer patients[14]. Selective inhibitors of COX-2 drugs have also been shown to inhibit angiogenesis in addition to relief of pain in these patients[9]. Combining opioids and other drugs such as antidepressant [15, 16], anticonvulsants [14, 16] have been shown to be effective too. In this situation, the social and psychological component of pain is also taken care of.

As our understanding of the specific cellular mechanisms of cancer pain increases more analgesics can be developed that targets the precise mediators of pain both according to the nature of the specific tumor and individual suffering from pain.

The prevalence of pain in hospitalized cancer patients is high and NSAIDs and weak opioids are the analgesic agents that are commonly used in them. Effort to use selective inhibitors of COX-2 NSAIDS should be encouraged because of the advantage they have on angiogenesis. Analgesia should be dictated and proportional to the intensity of pain in these patients[17].

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