

# Neuropathic Pain in a Prostate Cancer with Bone Metastasis: Therapeutic Approach

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**Received date:** May 10, 2017; **Accepted date:** June 08, 2017; **Published date:** June 18, 2017

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## Abstract

Pain is a frequent symptom in the evolution of the cancer patient, often acquiring chronic character as a consequence of the progression of the disease. More than 70% of patients are not under control.

In this case review we will expose the management of different types of pain, side effects and education, taking also into account the fragility of the elderly patient.

**Keywords:** Fragility; Pain; Elderly; Chemotherapy; Neuropathic; Opioid

## Introduction

Pain is a frequent symptom in the evolution of cancer patients, affecting 70% of them throughout the disease and causing a quality of life worsening.

Its characteristics may vary depending on the structures and mechanisms involved, often acquiring a chronic character as a consequence of disease progression. Treatments adapted to type and intensity of pain should be performed in order to optimize analgesic control and minimize side effects. It is important to know about pain etiology, since also chemotherapy can create a component of neuropathic pain. As it affects to quality of life, it is key a continuous recognition and titration of opioid doses.

Patients and families should be educated about the importance of controlling side effects (constipation), as well as misconceptions about them and indications for opioids titration or rotation; taking into account the fragility in elderly population [1].

## Clinical Case

A 80 year old male patient with a background of ex-smoker, diabetes mellitus type 2 and degenerative mitral-aortic valvulopathy. Partly dependent for daily living activities, needing help for walking and in treatment with insulin and pregabalin.

He was diagnosed of a prostate adenocarcinoma with 2 lumbar bone metastases in February 2014 (cT2cN1M1 Gleason 8, initial PSA 41). Simple hormonal blockade was initiated and given the progressive increase of PSA, we decided to add bicalutamide in October 2014. However, a new biochemical progression at November 2016, so chemotherapy (Docetaxel) was started every 21 days (6 cycles).

He went to the Emergency room in December 2016 because of poor analgesic control. Pain was at lumbar level, behaving as a neuropathic type and worsening at mobilization. No urinary or fecal incontinence. His family reported worsening from the beginning of chemotherapy.

Paracetamol and 5 mg of intravenous morphine were administered in the emergency room and the pain subsides until EVA 2.

So firstly, some questions: what type of pain is it and is there any other cause to justify it? It is a somatic, neuropathic nociceptive and breakthrough pain, probably related to metastatic bony involvement and chemotherapy (taxanes). Indeed, 70% of cases are secondary to the tumor but up to 20% is due to diagnostic and therapeutic procedures such as chemotherapy. Among the drugs most frequently involved are taxanes (sensory neuropathy) and cisplatin. In addition, prolonged corticoid treatment also creates myalgia and fatigue.

Next question should be: is there any other treatment that you can benefit for?

WHO analgesic ladder presents 3 steps: the first step is paracetamol/NSAIDs, the second step smaller opioids and the third step major opioids. We also have adjuvant drugs such as anticonvulsants and antidepressants. In our case, the patient was in treatment with pregabalin, good tolerated and with few side effects. Tricyclic antidepressants as nortriptyline and amitriptyline have severe side effects including tachycardia, urinary retention, constipation or exacerbation of glaucoma [2].

However, when either of these is ineffective or bad tolerated, we should change or add another co-adjuvant drug and if still there is no improvement, starting opioid.

In addition he also presents a breakthrough pain uncontrolled, so he went home with oxycodone 20 mg/naloxone 10 mg twice a day, Dexamethasone 4 mg twice a day, oxycodone 5 mg added as rescue and Fentanyl (Pec Fent 100 ug) just prior to mobilizations.

However he kepted very depressed, on 6 oxycodone rescues per day and needing to increase oxycodone to 40 mg/20 mg. Constipation improved with laxatives.

At 10th day, pain was better, so he started moving and thus constipation and mood. Actually, EVA 0, continuing up to 10 docetaxel cycles every 21 days.

Therefore, we consider as strategies to improve:

1) **Pain Diary:** It is important to discern between pain:

- Uncontrolled with dose escalation due to intolerable adverse effects.
- Not controlled without adverse effects in rapid dose titration.
- Controlled but with intolerable adverse effects.

In our case, we have a regular pain controlled with tolerable adverse effects, so if we increase the dose of opioid can improve.

According to the Edmonton scale, he presents a stage II (poor prognosis), which indicates that less than 50% of the patients will present a good analgesic control [3].

2) **Side Effects:** The most common side effects are dizziness, nausea, vomiting and constipation. However, if they are explained to relatives and patients, they are usually well managed. Constipation is multifactorial in most of cases, being favored by iron, corticoterapia or ondansetron (antiemetic drug) [4,5].

At drug titration, we prefer to avoid the fentanyl patch since we have to wait up to 72 h to see if it works.

3) **Depression:** In many oncological patients, depression is present (up to 32% of anxiety disorders and 6% of major depressive have been described). These episodes appear more frequently in patients with a history of affective disorder or alcoholism, poor control of pain, concurrent diseases, social isolation and low socioeconomic status [6].

## Conclusion

-Pain control is essential in cancer patients because of the importance of their quality of life, recognizing etiology and types of pain to improve the therapeutic strategy, since it can be reactive to tumor, chemotherapy and procedures.

-Erroneous belief in the insecurity of opioid drugs, regarding to side effects as constipation or sleeping: simple tasks as the use of laxatives,

hydration and proper management of doses and drugs for each moment are key for treatment success.

-Management of neuropathy due to chemotherapy with adjuvant drugs and oxycodone in case of no improvement with the previous one.

- Patient and family should be involved about receiving information, dosage and adverse effects. Valorate depression/anxiety is essential to discern of uncontrolled pain.

- Identify and handle typical situations of breakthrough pain.

- Prescription at fixed times, never "as needed" or "when pain appears" is better when the patients' needs opioids several times a day. With long-acting opioids, we control symptoms and quality of life improves.

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