



## Nucleotide-rich and B complex vitamin supplementation in chemotherapy induced neuropathic pain – a clinical case



SÃO JOÃO

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### Introduction

- **Neuropathic pain** is a prevalent contributor for **morbidity in breast cancer patients** who undergo chemotherapy and have an impact in their quality of life. This type of pain usually develops with a glove and stocking neuropathic descriptors such as shooting pain, tingling, numbness, paraesthesia and burning sensations.
- **B complex vitamins** contribute to the normal functioning of the peripheral nervous system and **nucleotides as cytidine-uridine** may contribute to the repair of myelin sheath of Schwann cells, so both may have a role in the **multimodal and integrative treatment approach**.
- Nowadays, despite improvements in cancer treatment, managing chemotherapy-induced neuropathic pain still remains a challenge.

### Case Report



- 50-year-old patient
- Personal history: **Breast cancer patient** treated with surgery and tamoxifen.
- **Chemotherapy-induced neuropathic pain**
  - > complains about bilateral foot pain after chemotherapy, as a shooting, heaviness, numbness and burning with interference in daily life activities and sleep.
  - > Multiple treatments, including pregabalin, gabapentin, amitriptyline, duloxetine, a capsaicin 8% patch and a lidocaine 5% patch, were administered with no improvement.



A 3-month treatment with a **dietary supplement based on nucleotides-rich and vitamins B1 and B12** was conducted.



- A 1, 2 and 3-month medical and psychology follow-up was performed. The patient showed no signs of depression or anxiety disorders during the evaluations.
- A **Brief Pain Inventory short form questionnaire** was performed before and after 3-months.
- The patient reported a significant improvement of pain (9 in 10 to 1 in 10) with a relief percentage of 0 to 90%.
- The pain control had a significant improvement in general activities, walking ability, normal work and quality of sleep.
- After 4 months, the patient was without pain, doing physical exercise and was able to do a reduce dose of pregabalin and suspend the other drugs.

### Conclusion

- This case highlights the complexity and challenge in managing chemotherapy induced neuropathic pain.
- In this patient, after multiple conventional treatments, **nucleotide-rich and B complex vitamin supplementation may have a role in pain relief and enhanced quality of life**, suggesting that supplementation could have a promising complementary approach for **managing neuropathic pain in cancer patients**.
- Well-controlled clinical trials are needed to confirm the efficacy of these products.