

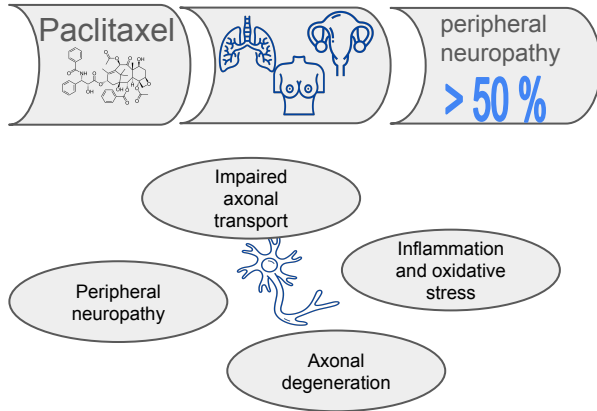
VITAMINS DEFICIENCY MIMICKING GUILLAIN BARRE SYNDROME IN A PATIENT TREATED BY PACLITAXEL

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MASCC 2024

Vitamin B6 (Pyridoxal phosphate)

Introduction

Peripheral neuropathy is one of the main toxicities of taxanes. We report a case with an atypical presentation in a biological deficiency syndrome context.



Observations

1 The patient is a 64-year-old woman with a history of poorly controlled Crohn's disease.

She is treated for an ER+ HER2+ localized breast cancer with an indication for adjuvant regimen with Paclitaxel and Trastuzumab after partial mastectomy.

2 The first significant toxicity was grade 3 diarrhea after the second injection.

A 25% dose reduction of Paclitaxel was applied.

3 A grade 2 peripheral neuropathy with sensory and fine motor deficit and hyporeflexia of hands and feet occurred.

This event rapidly worsened with upward extension, despite a new dose reduction (50%). This atypical presentation led to an initial suspicion of Guillain-Barré syndrome.

4 Initial biological assessment has shown profound deficiency in magnesium and vitamin B6.

There was no vitamin B1 deficiency according to laboratory standards Cyanocobalamin was already supplemented. Blood sugar was normal, dysimmune screening showed no anomaly. Patient refused neurological explorations (lumbar puncture and EMG).

5 Intravenous supplementation of magnesium, vitamin B1, and B6 led to a quick improvement of the neurological symptoms.

Chemotherapy could be resumed at adapted doses while awaiting the adjustment of Crohn's disease treatment.

Conclusion

Investigating biological deficiencies is necessary when patients experience more severe neurological toxicities than expected, especially in the context of malnutrition and/or diarrhea.

Although neurological manifestations have more often been described in cases of vitamin B1 deficiency, other deficiencies, like in vitamin B6 and magnesium, could explain atypical symptomatology.

Proposed comprehensive assessment of neuropathy

- Standard panel (CBC, electrolyte panel, creatinine...)
- Vitamin B1, B6, B9, B12
- Selenium, Magnesium, Calcium
- Fasting blood glucose, HbA1c
- Complement investigation (CH50, C3, C4), cryoglobulinemia
- Serum protein electrophoresis, immunoelectrophoresis
- Antinuclear antibodies, rheumatoid factors, anti-citrullinated peptide antibodies, ANCA
- Depending on the symptomatology: lumbar puncture, electromyogram, brain and spinal imaging...

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