

Paradoxical effect of low-dose tramadol: an exacerbation of neuropathic pain

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Introduction

The use of tramadol may cause some adverse events such as nausea, headaches and abdominal pain .

We report the intriguing observation of a patient with an exacerbation of his neuropathic pain after tramadol intake but surprisingly during dose reduction.

Case Report

A 52-year-old man was referred to Rheumatology outpatient unit in April 2013 for management of a longstanding and painful left S1 sciatica. His past medical history were remarkable for hypertension treated since 7 years with perindopril and amlodipine, and for HIV1 infection treated since 12 years with highly active antiretroviral therapy (combination Lamivudine + Tenofovir + Effavirenz). The last CD4 count was high at 519 cells/mm³ with low viral load at 130 copies/mL.

Case Report (continue)

This patient had nociceptive pain, associated with neuropathic pain defined by the presence of 5 items of DN4 questionnaire (9): electric shocks, numbness, tingling, painful cold, hypoesthesia to touch and to prick. The visual analog scale (VAS) pain was 85/100 mm. He had no motor deficit. The lumbar CT-scan showed a herniated disc L5-S1 with a left disco-radicular conflict. Electro-neuromyography showed a moderately severe sensomotoric axonal lesion of the left sciatica nerve. Treatment associated successively, according to the variations of the VAS, acetaminophen, codeine, aceclofenac, pregabalin and prednisolone infiltration. The improvement was satisfactory, with a VAS pain to 18 mm in July 2013.

During one flare-up in December 2013, the combination paracetamol (600 mg) plus codeine (50 mg) was ineffective and was replaced by paracetamol (325 mg) and tramadol (37.5 mg) [PCT/TMD]. The patient then described a reduction of nociceptive pain but an exacerbation of pain with neuropathic characteristics within the hour after PCT/TMD intake. After a voluntary stop of PCT/TMD by the patient few days after, the neuropathic pains then regressed. After a new flare in 2014, the patient received an intravenous infusion of 100 mg of tramadol, followed by tramadol, 50 mg/8 hours orally.

Case Report (end)

He then reported a significant improvement of nociceptive and neuropathic pain. We then reintroduced in September 2014 the PCT/TMD (produced by different pharmaceutical company). The pain with neuropathic characteristics reoccurred. The pain decreased spontaneously after increasing doses of tramadol to 50 mg, 8 hourly for two months and subsequently with the tramadol stopping.

Conclusion

The exacerbation of neuropathic pain observed in our patient would be different from pains already known and not yet elucidated that might occur during the treatment with tramadol .

Low-dose tramadol could exacerbate the intensity of neuropathic pain in some patients. The mechanism of action of tramadol in this paradoxical effect is unknown. The publication of other observations could help to better understand this phenomenon. However, this adverse event should not prevent us from prescribing tramadol to patients with neuropathic pain.