

# Tianeptine treating narcolepsy

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## Abstract

Modafinil and Methylphenidate are proven to be effective in treating Narcolepsy, but also antidepressants that enhance synaptic levels of noradrenaline and serotonin have been reported as having some therapeutic efficacy. The patient reported in this article received Tianeptine 37.5 mg for two consecutive months. One week after start of treatment improvement of both sleepiness and cataplexy could be noticed. He showed an improvement of the Epworth Sleepiness Scale Score from 22 up to 16.

## INTRODUCTION

Narcolepsy is a disorder characterized by chronic excessive sleepiness that significantly impairs daily life. Symptoms interfere with participation in interpersonal and social activities (Beusterien *et al.*, 1999). This syndrome is probably caused by the absence of hypothalamic hypocretin-containing neurons. Hypocretin excites numerous cell groups related to waking or motor activation (Mignot *et al.*, 2002). Up to now amphetamines and also antidepressants (Sonka *et al.*, 2006) have been used for this condition. Amphetamines improve alertness regardless of the cause, which indicates that dopamine decreases sleepiness. Sodium oxybate, a central nervous system depressant, has also important pro-waking activity (Billiard *et al.*, 2006). Antidepressants that enhance synaptic levels of noradrenaline and serotonin have been reported as having some therapeutic efficacy, which indicates that noradrenaline and serotonin decrease sleepiness. Tianeptine is a serotonin enhancer, proven to be effective treating depression. Its property of elevating the serotonin level indicates that it may also be effective for narcolepsy and cataplexy.

## CASE REPORT

A 36-year-old female 6 months after the onset of narcolepsy (Billiard *et al.*, 2006), which occurred with excessive sleepiness and irresistible naps during the day, is described. No triggering factors or accompanying symptoms could be identified. The patient fell asleep regularly at work. Clear-cut cataplexy with bilateral muscle weakness in lower limbs and face muscles subsequently appeared.

Altogether, her history was typical for classical narcolepsy with cataplexy, with absence of sleep paralysis or hallucinations.

Neurologic and psychiatric examinations showed normal results. Family history was negative regarding sleep or neurologic disorders. The initial score (Epworth Sleepiness Scale) was 22 (range 0-24). Standard brain magnetic resonance imaging did not reveal any lesions. Before initiating Tianeptine, the patient did not receive amphetamines or amphetamine-like psychostimulants. The patient received Tianeptine 37.5 mg for two consecutive months. One week after start of treatment improvement of both sleepiness and cataplexy could be noticed. The patient reported

an improvement of her sleepiness, indicated by an improvement (Epworth Sleepiness Scale) of up to 16. At the time of the last interview (the patient has been on Tianeptine for 2 months) with the patient no reappearance of cataplectic attacks leading to falls, was reported.

## DISCUSSION

This finding suggests that Tianeptine may be efficacious for treatment of narcolepsy, if confirmed in controlled trials and with objective measures of sleepiness.

## REFERENCES

- 1 Beusterien KM, Rogers AE, Walsleben JA, Emsellem HA, Reblando JA, Wang L, Goswami M, Steinwald B (1999). Health-related quality of life effects of modafinil for treatment of narcolepsy. *Sleep*, **22**: 757–765.
- 2 Billiard M, Bassetti C, Dauvilliers Y, Dolenc-Groselj L, Lammers GJ, Mayer G, Pollmächer T, Reading P, Sonka K (2006). EFNS Task Force: EFNS guidelines on management of narcolepsy. *Eur J Neurol*, **13**: 1035–1048.
- 3 Mignot E, Lammers GJ, Ripley B, Okum M, Nevsimalova S, Overeem S, Vankova J, Black J, Harsh J, Bassetti C, Schrader H, Nishino S (2002). The role of cerebrospinal fluid hypocretin measurement in the diagnosis of narcolepsy and other hypersomnias. *Arch Neurol*, **59**: 1553–1562.
- 4 Sonka K, Kemlink D, Pretl M (2006). Cataplexy treated with escitalopram-clinical experience. *Neuro Endocrinol Lett*, **27**: 174–176.