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LETTER TO THE EDITOR

A case of temporo-mandibular disorder with fibromyalgia treated with the antidepressant, milnacipran

Dear Editor

Temporo-mandibular disorder (TMD) is a localized chronic pain syndrome of the masticatory muscles and/or temporo-mandibular joints which frequently occurs together with fibromyalgia (Plesh *et al.*, 1996; Korszun *et al.*, 1998), a syndrome characterized by generalized pain with multiple tender points, accompanied by stiffness, fatigue, sleep disturbance and depression. Milnacipran is an antidepressant that specifically inhibits the reuptake of serotonin and noradrenaline with no interaction at postsynaptic receptors (Mochizuki *et al.*, 2002). A recent open-label trial reported the successful treatment, by milnacipran, of fibromyalgia syndrome with co-morbid depressive symptoms (Nagaoka *et al.*, 2004). We present here a patient with TMD and co-morbid fibromyalgia who was improved by treatment with milnacipran.

On the advice of her dentist, a 35-year-old housewife underwent orthodontic surgery for bite correction. Soon after she started to suffer from occlusal discomfort and psychosomatic symptoms such as fatigue, sleep disturbances and headache. Three years after the surgery she started to complain of widespread pain over the shoulders, back and other regions and stiffness when walking. She also had difficulty masticating and talking due to occlusal discomfort and perioral muscular stiffness. She became depressed and spent much of her time in bed. She was prescribed the antidepressant, fluvoxamine (50 mg/day) and the anxiolytic, alprazolam (2.4 mg/day) but they had little benefit and were discontinued. Examination found no neurological abnormality.

Four years after the surgery she was referred to our hospital complaining of stiffness and pain in the temporo-mandibular joints, neck, shoulders and back, numbness in the lips and psychosomatic symptoms including severe fatigue, sleep disturbances and depressed mood. A diagnosis of TMD with fibromyalgia was made. Pain intensity, on a visual analogue scale, was 100%. Her score on the Zung self-rating depression scale (Zung, 1965) was 70. The severity of fibromyalgia, using the tender point palpation score (Wolfe *et al.*, 1990), was 32. Treatment with milnacipran (30 mg/day) and ethyl loflazepate (2 mg/day) was initiated. Ten days later the patient began to feel a little less pain around her back and hips, but her complaints of diffuse occlusal discomfort persisted, and she strongly requested rapid relief from the symptoms. Milnacipran was, therefore, replaced with amitriptyline (10 mg/day). This was stopped 3 days later because of aggravation of her depressed mood and generalized tiredness and she was switched back to milnacipran. One month after the first examination, she was capable of mild physical exercise and found doing housework and driving easier than before. She also began to feel relief from her headache and stiff shoulders, but still complained of occlusal discomfort. Six weeks after the initial examination the milnacipran was increased to 45 mg/day. Although she described transient palpitations, this dose was continued and her lower back pain and numbness in the lips further improved. However, since her complaints became focused with growing irritability on occlusal discomfort, milnacipran was replaced with paroxetine (10 mg/day). Within 5 days she became depressed, complained of headache and nausea and feeling stifled, with a dull, ill-feeling thoughout her body. She was therefore switched back to milnacipran (45 mg/day). Two months after her initial examination milnacipran was increased to 60 mg/day. A month later the patient's somatic symptoms had improved. She estimated that the pain in and below her neck had diminished by about half. A week later, milnacipran was increased to 90 mg/day. About 4 months after the first examination, the patient began to feel relief from her occlusal discomfort and milnacipran was further increased to 120 mg/day. There were no appreciable adverse reactions and the patient reported feeling much better. For the first time she was able to

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smile, albeit not to the full extent. Although she still complained of occasional occlusal discomfort and pain in some regions, she experienced practically no difficulties with daily living activities. Her previous grim expression became softened, and she spoke in a cool, calm voice in contrast to loudly and aggressively describing her somatic symptoms. Six months after initiation of the treatment, the pain level on the VAS was reduced to 40%, her Zung depression rating to 32 and tender point palpation score to 17. The patient is currently continuing on milnacipran 120 mg/day.

The patient had a negative opinion of antidepressant drugs but, in spite of her wariness, a clear dose-dependent efficacy was observed with milnacipran with no significant adverse reactions. Therapy was switched to amitriptyline and to paroxetine during the course of treatment but both produced marked acute adverse reactions that made it impossible to continue them. Both antidepressants produced oversedation in addition to other specific side-effects. Treatment with milnacipran improved both the symptoms of TMD and co-morbid fibromyalgia. In addition, the patient's mood improved and she became calmer and more positive. The present case suggests that milnacipran therapy may be potentially useful in the treatment of TMD accompanied by fibromyalgia.

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