Drug-induced bruxism

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We sincerely thank Stephen Duma and Victor Fung for their comprehensive article on drug-induced movement disorders.[1] While the review is thorough, the adverse effect of drug-induced bruxism has been omitted.

Bruxism is defined as 'a repetitive jaw-muscle activity characterised by clenching or grinding of the teeth, or bracing or thrusting of the mandible'.[2] Bruxism occurs in adults and children, with a systematic review reporting an incidence of 18.6% in adults. Orofacial consequences include jaw-muscle hypertrophy, tooth wear and crack development, fractures of tooth restorations and pain associated with the teeth and surrounding musculature.[3]

Bruxism is an under-recognised adverse drug reaction particularly associated with use of antipsychotics and selective serotonin reuptake inhibitors.[4-7] A recent systematic review of case reports found it was most commonly reported with fluoxetine, venlafaxine and sertraline.[7] The median time for symptom onset is 3–4 weeks although it may occur even after a few doses. The frequency appears to be dose-dependent and symptoms usually take 3–4 weeks to resolve with drug cessation.[7] Antipsychotics are also associated with bruxism due to their inhibitory effect on dopamine-2 receptors.[5,6]

While the movement disorder tardive dyskinesia was mentioned in the article and the orofacial manifestations were alluded to, it is important to highlight that orobuccolingual dyskinesias (i.e. involving the face, mandible, lips and tongue) are often the first manifestation and the most common form of tardive dyskinesia.[8] They usually present as lip-smacking, grimacing, rapid eye blinking and dyskinetic tongue movements such as protrusion and tongue rolling.[9] In addition, they can also appear after medium- to long-term treatment with antipsychotic medicines, with a latency of up to 1–2 years.[8]

Clinical and registered indications for antidepressants and antipsychotics have expanded over recent years to include conditions such as anxiety, mania, behavioural disturbances of dementia and autism. It is therefore likely that the incidence of these orofacial drug-induced movement disorders will increase as these medicines are prescribed more frequently across a wider patient age range.[10]

Orofacial manifestations of drug-induced movement disorders are significant adverse effects which can affect both quality of life and medication adherence.[11] Raising awareness of this often-overlooked adverse effect is therefore essential.

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Stephen Duma and Victor Fung, the authors of the article, comment:

Bruxism, as well as related symptoms of jaw pain and headache, are relatively common yet often under-recognised adverse drug reactions. They were not mentioned in our article because we focused on drug-induced movement disorders that are typically referred to movement disorders specialists. While temporomandibular joint-related symptoms including bruxism are also encountered and sometimes managed by movement disorders specialists, they are usually initially referred to other specialists, including dentists, orthodontists, ear, nose and throat specialists, oromaxillofacial and other oral health specialists.

Bruxism can be managed in various ways. Sleep bruxism is typically initially treated with a splint.[1] This can also be applied to awake bruxism, however compliance may be an issue. Psychosocial approaches can also be used. However, botulinum toxin injections into the masseter and temporalis muscles are being used more frequently as an effective treatment with minimal adverse effects.[2]

We acknowledge that orobuccolingual dyskinesia is often the commonest form of tardive dyskinesia and awareness and recognition of this disorder will enable referral for appropriate treatment.

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