



## Perioral Twitching during Smiling - A Rare form of Essential Tremor

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### Abstract

Involuntary movements of facial muscles such as jaw tremor, oromandibular dyskinesia, dystonia, facial myoclonus or hemifacial spasm are common in clinical practice. A 52-year old woman with a 15 year history of upper limb tremor complained of recent spread of the tremor to her face. On examination a moderate kinetic and action, mildly asymmetric tremor of the arms was present. On voluntary and spontaneous smiling bilateral twitching of the buccal muscles was observed.

**Keywords:** Periorbital twitching; Essential tremor; Tardive dyskinesia

### Introduction

Involuntary movements of facial muscles such as jaw tremor, oromandibular dyskinesia, dystonia, facial myoclonus or hemifacial spasm are common in clinical practice. Isolated tremor induced by mild contraction of smiling muscles smiling tremor is extremely rare and was reported by some authors to be associated with Parkinson disease while others related this condition to essential tremor [1-3].

### Clinical Video

A 52-year old woman with a 15 year history of upper limb tremor complained of recent spread of the tremor to her face. Her medical history comprised Crohn's disease treated with adalimumab and depression treated with sertraline and perphenazine during the last ten years. On examination a moderate kinetic and action, mildly asymmetric tremor of the arms was present. On voluntary and spontaneous smiling bilateral twitching of the buccal muscles was observed (video 1). The twitching disappeared on rest and forced smiling. There were no extra pyramidal signs or involuntary movements of the jaw, lips or tongue (Figure 1). Propranolol treatment was offered but deferred. In the presented case the appearance of quite rhythmic twitching during activation of the buccal muscles can be interpreted as action tremor. Its bilaterality differentiates it from hemifacial spasm, segmental myoclonus or seizures. Tardive dyskinesia is also improbable in view of the absence of extrapyramidal signs or other involuntary orolingual movements despite the long lasting treatment with perphenazine. We neither are aware of any reports about involuntary movements associated with adalimumab treatment. Together with the presence of kinetic and postural tremor in the upper limbs, the smiling tremor in this patient probably represents an uncommon form of essential tremor.

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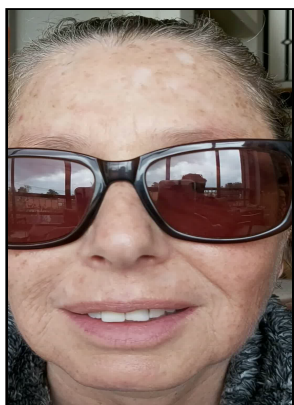
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**Figure 1:** Periorbital twitching during spontaneous and voluntary smiling accentuated on the left side. The involuntary movement disappears on rest and during forced smiling.



**Video 1:** Periorbital twitching during spontaneous and voluntary smiling accentuated on the left side. The involuntary movement disappears on rest and during forced smiling.

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