Psychogenic Unilateral Ptosis with Ipsilateral Muscle Spasm of Orbicular Oculi

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ABSTRACT

This report describes the rare case of a 27-year-old female patient with conversion disorder who presented unilateral ptosis with ipsilateral muscle spasm of orbicular oculi. The co-existing of ptosis and muscle spasm of orbicular oculi indicates that, in accord with prior reports, the overactivity of orbicular oculi is essential in psychogenic pseudoptosis.

The co-existing of unilateral ptosis and ipsilateral muscle spasm of orbicular oculi in the present case leads us to the conclusion that the overactivity of orbicular oculi is essential in psychogenic pseudoptosis.

key words: psychogenic movement disorder, conversion disorder, ptosis, muscle spasm, repetitive electromyography.

INTRODUCTION

Eyelid ptosis is observed in various disorders. Third cranial nerve palsy, Horner’s syndrome, myasthenia gravis, blepharospasm, hemifacial spasm, mitochondrial myopathy, mechanical impediment such as orbital mass lesions and others should be differentiated. Psychogenic functional ptosis should be also recognized as the differential diagnosis. Here, we report the rare case of a patient with conversion disorder who presented unilateral ptosis with ipsilateral muscle spasm of orbicular oculi.

CASE ILLUSTRATION

The patient was a 27-year-old woman who suddenly noticed left eyelid ptosis. Next day, she visited our hospital. Neurological examination shows not only the left monocular ptosis but also the muscle spasm of left orbicular oculi. After 10 mg edrophonium chloride was intravenously injected (tensilon test), the left ptosis along with muscle spasm of left orbicular oculi almost completely disappeared. However, this recovery sustained over an hour. For the possibility of myasthenia gravis, acetylcholinesterase
inhibitor (pyridostigmine bromide 180 mg/day) was administered. Thereafter, her symptoms partially improved. However, two months later, she complained of the easy fatigability and developed muscular weakness of bilateral arm. Therefore, she was admitted to our hospital. Her past, family and life histories were unremarkable. She took no medicine.

On admission, more careful neurological examination on eyes revealed the several following findings: (i) the left monocular ptosis, (ii) the muscle spasm of left orbicular oculi, (iii) the left eyebrow depression, (iv) the elevation of lower eyelid in addition to that of upper eyelid during upward gaze, (v) the exacerbation of muscle spasm and eyebrow depression during upward gaze, and (vi) the disappearance of muscle spasm and eyebrow depression during eye closure (Figure 1). The visual field and acuity were normal. The size of pupils was equal and the light reflex was normal. The limitation of eye movement and the involuntary eye movement such as nystagmus were not observed. Muscular weakness without atrophy was present in four limbs but the degree of muscular weakness was fluctuated in every examination. The other neurological examinations were normal. Blood examination showed no abnormalities including anti-acetylcholine receptor antibody. For the muscles of nasalis, trapezius, and abductor pollicis brevis on the left side, repetitive electromyography showed no abnormal findings despite the muscular weakness. Magnetic resonance image also showed no abnormalities in the brain, orbit, and cerebral artery. For the possibility of the psychogenic disorder, placebo tensilon test was performed. After saline was intravenously injected, her symptoms, just like true tensilon test, almost completely disappeared, confirming the diagnosis of psychogenic disorder. She was examined by a psychiatrist but she denied the possibility of psychological factors contributing to her symptoms. She was discharged and consecutively treated as an outpatient in the department of psychology. Two months later, her symptoms spontaneously disappeared without any medicines, although her psychological stress was not identified.

DISCUSSION

We reported the case of a 27-year-old woman who presented with unilateral ptosis with ipsilateral muscle spasm of the orbicular oculi. Psychogenic unilateral pseudoptosis has been reported by several authors.1-3 The co-existence of muscle spasm of the ipsilateral orbicular oculi in pseudoptosis is an uncommon finding.1-3 In this case, blepharospasm, Meige syndrome, hemifacial spasm, and other conditions presenting with muscle spasm were considered as differential diagnoses. In particular, hemifacial spasm should be ruled out, because the patient’s ocular symptoms were unilateral. One characteristic of hemifacial spasm is the persistence of muscle spasm even during sleep.4-6 However, in our case, when the patient was asked to close her eyes, the muscle spasm disappeared completely. The peculiar finding that the symptoms appeared when her eyes were open and disappeared when her eyes were closed is difficult to explain solely by an organic disorder, such as hemifacial spasm, and is suggestive of a psychogenic disorder.

Keane (1982) reported that the ipsilateral eyebrow depression was a clinical feature in patients with pseudoptosis.1 Hop et al. (1999) and Peer Mohamed et al. (2009) emphasized that overactivity of the orbicular oculi muscle contributed to pseudoptosis.2,3 In our case, although the muscle spasm of the orbicular oculi existed together with ptosis, the pathophysiology could only be explained by overactivity of the orbicular oculi, in accordance with previous papers.1,3

The diagnosis in our case may also be considered psychogenic hemifacial spasm.
although the patient never complained of facial spasm. The characteristics of psychogenic hemifacial spasm are as follows:\textsuperscript{4-6}: (i) acute onset, (ii) inconsistent and incongruous features, (iii) associated somatizations, (iv) reduction or abolishment of facial spasm with distraction, (v) response to placebo, suggestion, or psychotherapy, (vi) spontaneous remission, and (vii) normal neuroimaging. Almost all of these characteristics are applicable to our case. However, we believe that the diagnostic term applied to our case is not overly important, because symptoms in conversion disorders are never completely compatible with those of organic neurological disorders.\textsuperscript{7-8} To be more specific, we believe that psychological neurological disorders should not be categorized into a single type of organic neurological disorders.

CONCLUSION

Consequently, the co-existence of unilateral ptosis and ipsilateral muscle spasm of the orbicular oculi in the present case leads us to the conclusion that overactivity of the orbicular oculi underlies psychogenic pseudoptosis.

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REFERENCES