梨花醫大誌：第3卷·第2號·1980
Ewha Med. J. Vol. 3, No. 2, 1980

# A Case of Facial Myokymia

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＝國文抄錄＝

**顔面의 纖維性 筋間代痙攣**

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著者들은 40歲 女子患者에서 發生한 顔面의 纖維性 筋間代痙攣 1例를 治驗하였기에 報告하는 바이다.

**The authors describe a case of facial myokymia which was considered as an isolated event.**

*Key Words · Facial myokymia · Electromyography · Involuntary movement of face.*

Facial myokymia, first described by Bernhardt[3] in 1902, is quite different from hemifacial spasms or palatal nystagmus and is usually benign but has rarely been associated with multiple sclerosis. With the present series the initial number of cases described has reached 17[11].

The authors have presented a case of facial myokymia affecting a woman.

## Case Report

History and Examination: D.K. won, a woman of 40-year-old, was seen on 15 October 1979. She had no past history of nervous system or of any serious illness. The symptoms had been present for one year and affected the forehead and around the eyes, all the muscles of these area being in continuous undulating flickering contractions. She was treated as trigeminal neuralgia in local clinic, but she had no improvement. There is no other symptoms and no other abnormal physical signs.

Electromyography(EMG) of obicularis occuli showed silent but involuntary firing of muscle potentials, which is irregular or rhymic. On volition, good motor unit in size shape and number of firing (Fig. 1).

The symptoms was subsided with steroids and diphenylhydanton.

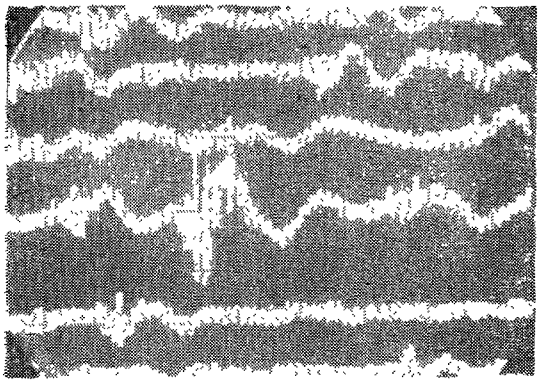

**Fig. 1.** Electromyography of orbicularis occuli reveals silent but involuntary firing of muscle potentials, which is irregular or rhythmic.

## Discussion

This curious, infrequent condition is quite differnet from hemifacial spasm or palatal nystagmus. The clear distinction between the various forma of involuntary movements of face is of some practical importance for the patient.

The term myokymia was described by Schultze[14] in 1895. This has different EMG characteristics to those of facial myokymia and appears to be a chronic but entirely benign condition[11]. In 1903 facial myokymia was first described by Bernhardt[3]. With the present series the total number of cases described reaches 17, which might therfore be thought to be exceeding rare[11]. The condition occurs in normal people with severe fatigue and after excessive alcohol indigestion[7].

Of greater importance is the association with disseminated scleosis, which was first emphasized by Oppenheim[13], Kino[9] established the connection much more firmly by describing three patients who had episodes of myokmia in the early years of developing disseminated sclerosis. The sudden oncet and gradual remission greatly resemble the time relationships of the early symptoms of the diease. Of the 17 reported cases, the myokymia has been an isolated event in five and the diagnosis of disseminated sclerosis has been virtually certain in nine and probable in three[11]. Buzzard[4] had reported neurosyphillis as a cause of the facial myokymia, but there was no proof of this. Lambert, Love, and Mulder[10] have reported facial myokymia in patients with pontine glioma.

Fasciculation of the facial muscles may occur in a variety of affection of the facial nerve and nucleus, but facial spasm of the precise type does not appear to have been described in many patients who undoubtedly had some unduration other han disseminated sclerosis, with the possible exception.

Facial myokymia has never been described as immediately following a facial palsy, although in two patients a transient palsy had occurred on the same 6 years before[11].

The onset is nearly always abrupt. The movements are continuous and never of great amplitude, and the condition invariably remits after a few weeks or months. The usual complaint is a stiff and swollen face and some patients may notice spontaneous flickering movement when looking in mirror. There is slight contraction if the muscles of the palperbral fissures and drawing up of the angle of the mouth. Continuous flickering of all the facial muscles can seen from the frontalis to the platysma. The symptoms are not severe and the cosmetic effect can be distressing in a young woman. The condition subsides spontaneously in a variable period ranging from three weeks to six months[7][11].

EMG shows a pattern of continuous potentials indistinguishable form those of normal motor units. The discharge may occasionally assume a rhythmic pattern, with motor units

firing in short bursts followed by brief periods of quiscence[7].

There is no specific treatment. If facial myokymia occurs during exacerbation of multiple sclerosis, appropriate therapy using steroids may resolve in a shorter period. Diphenylhydantoin may be tried in an attempt to improve membrane stability of the seventh-nerve fibers[7].

## Summary

A case of facial myokymia which was considered as an isolated event was reported and the clinical and EMG features described.

## —References—

1) Alajouanine T and Thurel R: Les Spasmes de la Face et leur Traitement. Masson, Paris. 1936.
2) Andermann F, Cosgrove JBR, Lloyd-Smith DL, Gloor P, and McNaughton FL: Facial myokymia in multiple sclerosis. Brain, 84, 31—44, 1961.
3) Bernhardt, M: Ein ungewöhnlicher Fall von Facialiskrampf (Myokymie, beschränkt auf das Gebeit des linken Facialis). Neurol Zbl, 21, 689—695, 1902.
4) Buzzard EF: Varietis of facial spasm and thier treatment. Practitioner, 91, 745—754, 1913.
5) Denny-Brown D and Foley JM: Myokymia and benign fasciculation of muscular cramps. Trans Ass Amer Phycns, 61, 88—96, 1948.
6) Frenkel H: Spasme primitif du facial avec mouvements fibrillaires continus, (myokymie, limitee a la distribution du facial). Revneurol, 111, 609—612, 1903.
7) Gilroy-J, Meyer JS: Medical Neurology. MaCmillan Publishing Co., Inc. New York, Collier MaCmillan Canada, Ltd. Toronto, Bailliere Tindal. London. 657—658, 1975.
8) Haymarker W: Bing's Local diagnosis in neurological diseases. The C.V. Mosby Co., 15th ed., Saint louis. 227—228, 1969.
9) Kino F: Muskelwogen (Myokymie) als Frühsymptom der multiplen Sklerose. Dtsch Z Nervenheilk, 104, 31—41, 1928.
10) Lambert EH, Love JG and Mulder DW: Facial myokymia and brainthmor: electromyographic studies. Newsletter Amer Ass Electromyogr., Electrodiagn., 8, 8. 1961.
11) Matthews WB: Facial Myokymia. J. Neurol Neurosurg Psychiat. 29 : 39, 1966.
12) Newmark L: Ein Fall von primärem tonischem Gesichtskrampf mit Muskelwogen. Neurol Zbl, 22 : 461—462. 1903.
13) Oppenheim H: Leist. Fortschr. Gebete Neurol Psychiat 20, XIV. (Cited by Andermann et al, 1961). 1916.
14) Schultze F: Beiträge zur Muskelpatholgie. I. Myokymie (Muskelwogen) besonders an den Unterextremitäten. Dtsch Z Nervenheilk 6 ; 65—70, 1895.
15) Wilson SAK: Neurology, Vol. 2, p. 1647. Arnold, London. 1940.