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Myasthenia Gravis and Schizophrenia — A Rare Combination

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Introduction

The effect of emotional stress in myasthenia gravis is well known, and moreover Meyer (7) has shown that psychiatric problems make a considerable contribution to the mortality of the disease. It has been estimated that there are at least 1,100 diagnosed myasthenics in England and Wales with many more undiagnosed (5). Considering the close medical supervision myasthenics receive it is striking that in 677 cases of myasthenia subjected to psychiatric scrutiny only 2 schizophrenia-like reactions were observed, despite the similar age of onset of the two conditions (see Table I).

Table I

Incidence of psychiatric illness in myasthenia gravis

Author	No.	Schizophrenia-like reactions	Depression or manic-depressive psychosis	Other psychiatric illness
Eaton (3)	175	2	1	3
Brolley (1)	13	—	—	1
Ossermann (8)	325	—	14	1
Meyer (7)	99	—	—	45
MacKenzie (6)	25	—	—	11
Szobor (10)	40	—	—	1

Eaton's cases are merely described as 'reactions resembling those of schizophrenia in two cases in which exophthalmic goitre was associated'—without clinical details. In the literature of the last 33 years anecdotal reports are given by Williams and Silbermann (11) and Collins (2), but only Hayman (4) describes Schneiderian first-rank symptoms (9), and in his case hydocephalus was present. This paper reports a schizophreniform illness (of paraphrenic type) occurring in a patient with myasthenia gravis.

Case Report

C.F., a retired man of 67 years was first seen at his home on 16.6.71. He complained of persecution by his neighbours with planted microphones, signalling lights and nasty gases which he said were transmitted by radar into his house. Treatment was refused, and he began to sleep in a car, so on 2.7.71 his compulsory admission to hospital was arranged.

On admission to Middlewood Hospital he felt gas was present in the ward and blamed this for his muscular weakness. Originally, he claimed, gas had been introduced into his house by light beams and had caused breathlessness and weakness in his legs. Thought disorder was minimal, affect and rapport appeared normal. Psychological testing with the Mill Hill Vocabulary Scale and the Coloured Progressive Matrices showed above-average ability with no significant discrepancy between the two tests.

Family and personal history

He was the fourth child in a family of seven and described his childhood as happy. After an elementary education he had a stable work record until he had to give up work in 1959 at the age of 56 as a result of his myasthenia. He had been married for 38 years before his wife died and he had had six children.

Past medical history

Myasthenic symptoms apparently started in 1958 with diplopia which he first mentioned to an optician the following year. Referrals to an ophthalmologist and a neurologist ensued. He also developed a ptosis of the left eyelid and experienced some difficulty in swallowing. After clinical examination, a Tensilon test, and a therapeutic trial of prostigmin, Dr. J. Carson, Consultant Neurologist (United Sheffield Hospitals) diagnosed myasthenia gravis. Since that time the patient has remained on prostigmin.

Recurrent chest symptoms have resulted in at least ten admissions to hospital since 1934. A residual bronchiectasis was probably responsible for some adventitious sounds noted on admission.

Physical examination

Apart from these adventitious sounds and a varying degree of ptosis, no other physical signs were present.

Treatment and progress

He was treated with chlorpromazine syrup 100 mgm. t.d.s. in addition to his normal dosage of

prostigmin 15 mgm. t.d.s. He improved rapidly and was discharged on 21.7.71 being instructed to take a reduced dosage of chlorpromazine.

Once at home he stopped taking his chlorpromazine tablets and his symptoms returned, so that in October 1971 he once again believed that the neighbours had 'bugged' his house with microphones and were filling his kitchen with nerve and acid gas which he could smell and believed affected his brain and voice. He also thought they might be putting thoughts into his head. After being urged to restart the chlorpromazine, when last seen on 17.12.71 a good deal of improvement had occurred.

Discussion

Consciousness was never clouded, and despite detailed clinical and psychological examination there was never any evidence to support the diagnosis of toxic confusional state.

An increase in muscle tone is not uncommon in schizophrenia especially in the catatonic form, and the speculation must arise as to whether in some way there is a tendency, biochemical or otherwise, for the two diseases to be mutually incompatible.

Summary

A survey of the literature reveals the infrequent coincidence of schizophrenia and myasthenia gravis in the same patient. Such a patient is described in this paper. The possibility of a mutual antagonism is suggested.

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