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*The characteristics of patients with myasthenia gravis.
A retrospective study*

Myasthenia gravis (MG) is an autoimmune disease caused by antibodies against the acetylcholine receptor (AChR), which lead to damage of synaptic transmission mechanisms. Circulating AChR antibodies are present in 80% to 90% of patients with MG. There is a differential involvement of muscle groups in this disease. The clinical symptoms include: ptosis, diplopia, dysarthria, dysphagia. The weakness and fatigue worsen on exertion and improve with rest. The diagnosis of MG is based on clinical symptoms, neurological examination, and electrophysiological and serological tests. The treatment contains: acetylcholinesterase inhibitors, immunosuppressive drugs, plasma exchange and thymectomy (6, 11).

The aim of the study was characteristics of patients with MG based on their medical data.

MATERIAL AND METHODS

The retrospective analysis of medical data of 27 patients with MG, hospitalized in the Department of Neurology, Medical University of Lublin between 1999 and 2005 were performed. The diagnosis of MG was based on compatible symptoms associated with electrophysiological evidence and positive prostigmine test.

The average age of patients was 46.7 years (range: 17–78). The patients were divided into two groups according to their age (younger – up to 65 years, and older – above 65 years). The average duration of the disease was two years eight months (one month – 26 years). According to duration of the disease the patients were divided into two groups; one group with short duration (up to 12 months), and other – with long duration (above 12 months). Attention was also paid to diseases coexisting with MG, the presence of thymoma, kind of initial symptoms of MG, and methods of treatment. Results are presented in percent (%).

RESULTS AND DISCUSSION

Results of the study are presented in Table 1 and in Figures 1–4. The results showed that the average age of patients with MG was 46.7 years. Similar results observed Populas et al. (10). In our study 77.8% of patients were below 65 years of age. Durand et al. (4) state that the diagnosis of MG is often missed or delayed in the elderly due to broad differential diagnosis in older people, and because of the high incidence of the disease in the middle and old age it is often overlooked. Aragonés et al. (1) revealed a higher than expected incidence of MG in the elderly.

Table 1. Characteristics of patients with myasthenia gravis

Parameter		Number of patients (%)
Age	Younger (up to 65 years)	21 (77.8%)
	Older (above 65 years)	6 (22.2%)
Sex	Female	21 (77.8%)
	Male	6 (22.2%)
Duration of myasthenia	Short (up to 12 months)	16 (59.3%)
	Long (above 12 months)	11 (40.7%)
Presence of thymoma		12 (44.4%)
Concomitant diseases	Diabetes	5 (18.5%)
	Thyroid disease	4 (14.8%)
Initial symptoms	Ocular	13 (48.1%)
	Bulbar and ocular	6 (22.3%)
	Generalized	8 (29.6%)
Methods of treatment	Acetylcholinesterase inhibitors	26 (96.3%)
	Corticosteroids	7 (25.9%)
	Other immunosuppressants	1 (3.7%)
	Plasmapheresis	3 (11.1%)
	Immunoglobulins	1 (3.7%)
	Thymectomy	5 (18.5%)

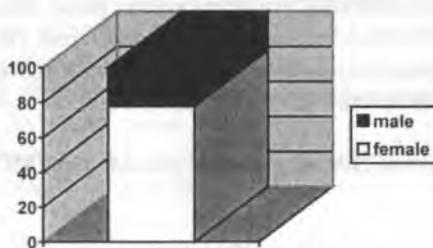


Fig. 1. Sex (%) of patients with myasthenia gravis

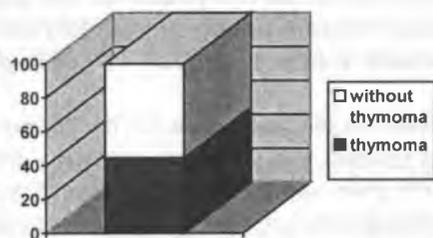


Fig. 2. The presence (%) of thymoma in patients with myasthenia gravis

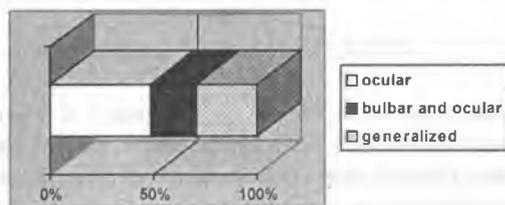


Fig. 3. The frequency (%) of initial symptoms in patients with myasthenia gravis

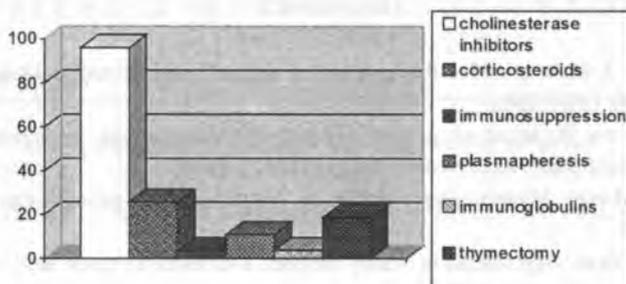


Fig. 4. Methods (%) of treatment of patients with myasthenia gravis

In our study the majority (77.8%) of patients with MG were female. Cunha et al. (3) showed that 68% of MG patients were female and 32% – male. In the study conducted by Robertson (13) the female/ male ratio was 2:1. Our results are also similar to those presented by RastenYTE et al. (12). The authors observed that more than half of all patients with MG were female, and were younger than 50 years of age.

The majority (59.3%) of our patients with MG had a short history of disease duration, shorter than 12 months. This result is relevant with the data observed by Kalb et al. (7). The authors showed that about 60% of patients were diagnosed within the first year after initial symptoms had occurred. We observed that thymoma was present in 44.4% of all patients with MG. Guidetti et al. (5) demonstrated that only 21% of patients with MG had thymoma.

Our study revealed that diabetes and thyroid disease were associated with MG. Diabetes was present in 18.5% of MG patients, and thyroid disease – in 14.8% of patients. In the study conducted by Christensen et al. (2) most frequently associated with MG autoimmune diseases were thyroid and rheumatic disorders.

The frequency of the initial symptoms of MG was: ocular (ptosis, diplopia) – 48.1%, bulbar and ocular – 22.3%, and generalized – 29.6%. In Lavrnjc et al. (9) study, the most frequent initial symptoms were also ocular.

We observed that the most frequent method of MG treatment was administration of acetylcholinesterase inhibitors (in 96.3% of patients). Corticosteroids were used in 25.9% of patients in association with acetylcholinesterase inhibitors. Other immunosuppressive agents were administered in 3.7% of patients, and thymectomy in 18.5% of patients. According to Kawaguchi et al. (8) the most frequent therapy of MG was also administration of cholinesterase inhibitors (in 86% of patients) but thymectomy was performed in 68% of patients, corticosteroids were used in 64% of patients, and other immunosuppressive agents – in 10% of patients.

CONCLUSIONS

1. MG was most frequently observed in females and in younger patients.
2. The most frequent initial symptoms of MG were ocular.
3. MG was associated with diabetes and thyroid disease.
4. Thymoma was present almost in half of patients with MG.
5. The administration of acetylcholinesterase inhibitors was the most frequent therapy of patients with MG.

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SUMMARY

A retrospective study of patients with myasthenia gravis (MG), hospitalized in the Department of Neurology, Medical University of Lublin between 1999–2005 was performed. It was observed that MG occurred more frequently in females and in younger patients. In some patients MG was associated with diabetes and thyroid disease. Thymoma was present almost in half of MG patients. The acetylcholinesterase inhibitors therapy was used most frequently.

Charakterystyka chorych na miastenię. Badanie retrospektywne

Przeprowadzono badanie retrospektywne chorych na miastenię (MG), hospitalizowanych w Klinice Neurologii Akademii Medycznej w Lublinie w okresie 1999–2005. Badanie wykazało, że MG występowała częściej u kobiet i u osób młodszych. U części chorych łącznie z miastenią występowała cukrzyca i choroba tarczycy. Obecność grasiczaka obserwowano prawie u połowy chorych na MG. W terapii najczęściej stosowano inhibitory acetylocholinesterazy.