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### *Thymectomy as an effective treatment in myasthenia*

Myasthenia is an acquired immunological disorder, which is due to postsynaptic Ach receptors' impairment with postsynaptic neuro-muscular blockade (5). The hallmark symptoms consist of rapid muscular fatigue, which appears during continuous muscular exertion. The symptoms are more apparent in the evening and tend to diminish after the rest. The phenomenon is called apocamnosis (1).

Apocamnosis is a result of inappropriate nerve conduction with deficiency localized in neuro-muscular junction. According to Simpson's hypothesis postsynaptic Ach receptors are blocked by autoaggressive antibodies causing an autoimmune disease.

#### CASE DESCRIPTION

The patient was a 38-year-old male with mild generalized myasthenia diagnosed seven years ago. The thymus was resected in Gemelli Clinic in Rome in 1997. He was on Mestinon for about 3 years after the operation. At the time of the admission for control analyses he did not take any medicines. He complained of breath shortness and discomfort in his chest. Arterial blood pressure was 90/70 mmHg. Sedimentation rate was 5 mm/h. Results of blood and urine analyses did not show any abnormalities. Physical examination revealed no abnormalities either in pulmonary, digestive, cardio-vascular or musculo-skeletal system. Neurological evaluation did not show any abnormalities, either. Apocamnosis test was negative. Immunological tests were negative, too. Electrophysiological tests were at borderline. There were no signs suggesting the relapse of the disease. The patient was classified to have the total remission after thymectomy.

#### DISCUSSION

Medical prognosis for patients with myasthenia has changed for a few last decades. In 1934 physostigmine was introduced in pharmacotherapy and was the only symptomatic medicine at that time. Mortality rate reached 30% at that time (3). In the 50's thymectomy was introduced for the wider use, as it became apparent for about 75% of myasthenia patients to have some kind of thymus disease (85% – hyperplasia, 15% – thymoma). Thymic lymphocytes proved to be more reactive to Ach receptors in comparison with peripheral lymphocytes. In the 60's there were not unquestionable medical indications for thymectomy in myasthenia treatment. New ways of myasthenia therapy like physostigmine (Mestinon), ambenonium (Methylase), corticosteroids, azathioprine, cyclosporine, immunoglobulins or plasmapheresis in particular situations highly improved medical prognosis. The list of medical indications for surgical approach to myasthenia was lengthened along with the

development of anesthesiological and surgical techniques (4). It is worth mentioning that mortality rate due to thymectomy is insignificant nowadays, unlike in the 60's. Some authors state that each adult with generalized myasthenia should be treated with thymectomy.

A large group of patients being treated with thymectomy achieved better results in comparison with the patients being only on pharmacological treatment. 70% of operated patients observed the improvement of the health state (2). By combining surgical and pharmacological treatment up to 30% of patients achieve full remission. The best time to perform operation is up to 2 years from initial symptoms.

Nowadays medical prognosis in myasthenia has been changed and is relatively quite good. Mortality rate is small and patients tend to continue their ordinary activities and achieve a full recovery.

## CONCLUSIONS

Thymectomy with pharmacological and rapid surgical treatment (two years after the disease was diagnosed) in myasthenia among adults can lead to the total remission of the disease.

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## SUMMARY

The paper describes a patient case with early diagnosed myasthenia introduced, who after thymectomy and postsurgical pharmacology achieved a total remission of the disease within six years.

### Tymektomia jako skuteczne postępowanie terapeutyczne w miastonii

Przedstawiamy przypadek pacjenta z wczesnie rozpoznaną miastenią, którego poddano tymektomii i pooperacyjnej farmakoterapii (Mestinon), uzyskując pełną remisję choroby w ciągu sześciu lat.