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Effect of Thymectomy in Myasthenia Gravis

Myasthenia Graviste Timektominin Etkisi

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The first thymectomies performed in patients with myasthenia gravis without a thymoma were performed 75 years ago, and although retrospective studies since then have shown varying levels of effectiveness for this method, the net effect of this intervention has not yet been proven. Therefore, the Thymectomy Trial in Non-Thymomatous Myasthenia Gravis Patients Receiving Prednisone Therapy "MGTX" was initiated in 2006, and 126 patients in 36 centers were studied for 6 years (1). This multicenter, randomized, rater-blinded study included patients between aged 18-65 years whose illness had started within the last 5 years, who had acetylcholine receptor antibodies, who did not have thymomas, and who had never used any immune-suppressants other than prednisone. The patients were randomized into 2 groups, one group took oral prednisone only and the other group had thymectomy in addition to oral prednisone treatment. Prednisone was initiated immediately and thymectomy was performed within 30 days by removing all mediastinal tissue after sternotomy.

In patients who were not using prednisone, 10 mg/day prednisone was initiated and increased up to 100 mg/day if required. In patients who were already using prednisone, their daily dosage was increased to 120 mg/day. The goal was establishing a minimal manifestation status within 4 months and decreasing quantitative myasthenia gravis score below 14. Drug dosage was tapered in stabilized patients who then continued with a maintenance dosage.

The primary end points of the study were;

1) Mean time-weighted quantitative myasthenia gravis score (0-39 points could be given depending on 13 clinical features and a 2.3 points decrease showed clinical improvement),

2) Time-weighted prednisone dosage requirement in 3 years.

After the analysis, the time-weighted quantitative myasthenia gravis score was found as 2.85 points lower ($p<0.001$) and the time-weighted prednisone dosage requirement was 16 mg lower ($p<0.001$) in the thymectomy group.

In conclusion, this study demonstrated that the clinical status was better after 3 years, immunosuppressive requirement was lower and the need for hospitalization was less frequent in patients who underwent thymectomy. One of the limitations of this study was the lack of sham thymectomy due to ethical considerations. In addition, this study does not give an idea about other less invasive thymectomy approaches in which the probability of ectopic thymic tissue remaining is higher (1).

Reference

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