

# Thymectomy as an oncologic and immunologic treatment

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Thymectomy for thymic epithelial tumors (TETs) has been an established thoracic surgical procedure for more than 40 years (1) and also has been reported to manage myasthenia gravis (MG) in selected patients for more than 50 years (2). Paraneoplastic autoimmune (PN/AI) syndromes such as MG, pure red cell aplasia (PRCA), hypogammaglobulinemia are a clinically important entity in patients with TETs. Among them, MG in patients with thymoma is the most commonly encountered PN/AI syndrome.

In this study using the International Thymic Malignancy Interest Group (ITMIG) database, Padda and colleagues investigated characteristics of PN/AI and its association with survival and oncologic outcomes (3). The cohort was based on the retrospective database from 1951 to 2012, with the median follow-up being 3.7 years. The authors stated that the most important finding in their study is that PN/AI syndrome status was not an independent factor associated with recurrence free survival or overall survival in a multivariable model.

This large database study provided us with invaluable information on uncommon TETs, such as thymic carcinoma and neuroendocrine tumors and uncommon PN/AI syndromes, such as PRCA and hypoglobulinemia. Specifically, on the basis of their data, PN/AI syndrome in patients with thymic carcinoma is less than one-fifth of that in frequency in patients with thymoma. PRCA was about 1/50 of MG in frequency in patients with TETs and hypoglobulinemia was even rarer and about 1/160 of MG in frequency, compared to those with TETs.

Thymectomy can be a therapeutic operation in managing MG as an immunologic disease, demonstrated by the recent randomized controlled trial (4). As for other PN/AI

syndromes such as PRCA and hypoglobulinemia, it remains unknown whether thymectomy is associated with improved control, although several case series suggested thymectomy may control PRCA, but not hypoglobulinemia (5-8).

In patients with TETs accompanied by PN/AI syndromes, thymectomy may be an oncologic and immunologic treatment, killing two birds with one stone. In this study, PN/AI was shown not to adversely influence survival or oncologic outcomes in patients with TETs. Padda and colleagues are to be congratulated for this seminal contribution (3).

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## Footnote

*Conflicts of Interest:* The author has no conflicts of interest to declare.

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