



EP14.13: Subsequent Malignancies and Autoimmune Disorders in non-myasthenic Patient with Stage I thymoma Underwent Limited resection or Thymectomy

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INTRODUCTION

The standard resection for early-stage thymoma is total thymectomy and complete tumor excision without myasthenia gravis (MG), limited resections may be considered for clinical early-stage thymoma in recent decades [1]. However, it had reportedly the risk of cancer, autoimmune disease if received thymectomy [2]. This study analyzed the cumulative incidence rate of **subsequent malignancies** and **autoimmune disorders** between groups.

METHODS

The clinical data of 183 non-myasthenic patients with stage I thymoma from three medical institutions were retrospectively reviewed between **March 1998 and December 2013**.

These patients were divided into stage I thymoma underwent **thymectomy** (Group A) or **limited resection** (Group B). Newly development of subsequent malignancies and autoimmune disorders were documented, the cumulative incidence rate was analyzed by using Fine-Gray Model.

The median observation time was **157.2 months** (interquartile range (IQR), 103.6 – 194.9 months). **31 (16.9%) subsequent malignancies** were observed and **13 (7.1%) subsequent autoimmune disorders** in our cohort.

DISCUSSION AND CONCLUSION

In the long-term follow up of our cohort, the incidence rate of developing new autoimmune disorders or subsequent malignancies was similar in non-MG stage I thymoma between limited resection or thymectomy group.

Further prospective large multi-institutional or randomized controlled studies could provide insights into this relatively indolent disease, interpreting cautiously.

REFERENCES & ACKNOWLEDGEMENTS

- [1] Tsai PC, Tseng YC, Ting YC, Huang CS, Hsu WH, Tang EK, Hsu HS. Long-term follow-up of non-myasthenic patients with early-stage thymoma who underwent extended thymectomy or limited resection. Eur J Surg Oncol. 2024 Jun;50(6):108349.
- [2] Kooshesh KA, Foy BH, Sykes DB, Gustafsson K, Scadden DT. Health Consequences of thymus removal in adults. N Engl J Med 2023;389(5):406–17.

Disclosure statement: No AI tools or AI-assisted technologies

RESULTS

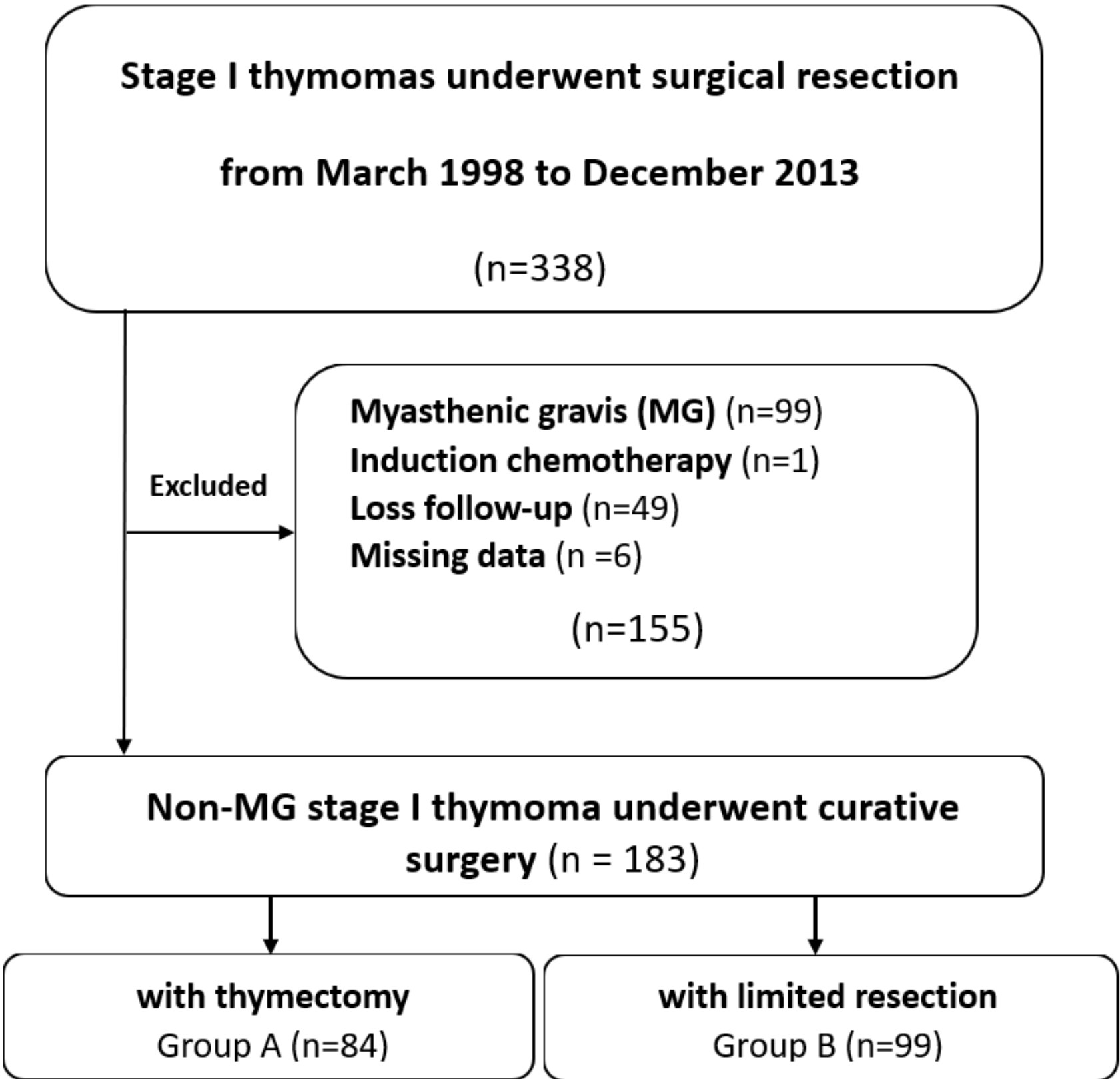


Figure 1. Flow chart of study design.

Table 1. Characteristics of malignancies and auto-immune disorders (n = 183)

Variables	Number (%)	Variables	Number (%)
Subsequent malignancies, n (%)	31 (16.9%)	Colorectal cancer	1 (0.5%)
Lung cancer	9 (4.9%)	Uterus Leiomyosarcoma	1 (0.5%)
Breast cancer	3 (1.6%)	Kaposi's sarcoma	1 (0.5%)
Prostate cancer	3 (1.6%)	Previous malignancies, n (%)	21 (11.5%)
Urinary tract cancers	2 (1.1%)	Subsequent auto-immune disorders, n (%)	13 (7.1%)
Pancreas cancer	2 (1.1%)	Systemic lupus erythematosus	4 (2.2%)
Lymphoma/Myeloid leukemia	2 (1.1%)	Hypogammaglobulinemia	3 (1.6%)
Head and neck cancer	2 (1.1%)	Newly onset myasthenic gravis (MG)	2 (1.1%)
Hepatocellular carcinoma	2 (1.1%)	Pure red cell aplasia	2 (1.1%)
Thyroid cancer	1 (0.5%)	Vasculitis	1 (0.5%)
Gastric adenocarcinoma	1 (0.5%)	IgA deficiency	1 (0.5%)
Esophageal squamous cell carcinoma	1 (0.5%)	Previous auto-immune disorders, n (%)	7 (3.8%)

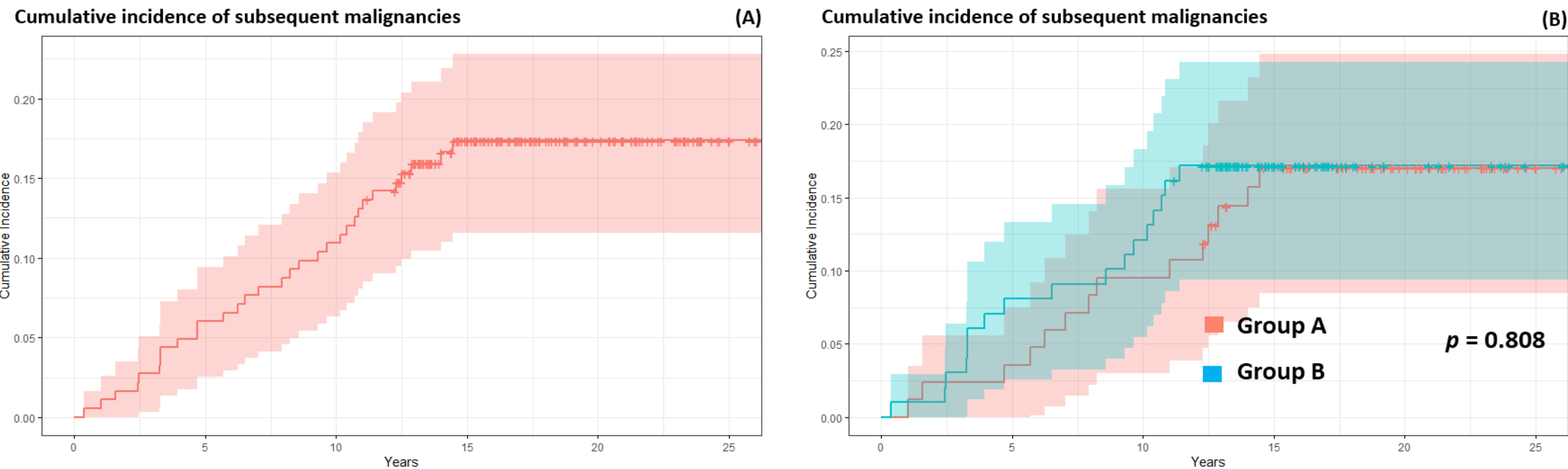


Figure 2. Subsequent malignancies developed 17.4% cumulatively over 15 years (A). No significant difference between underwent limited resection or thymectomy (15 years cumulative incidence rate: 17.0% vs 17.2%, p = 0.808) (B)

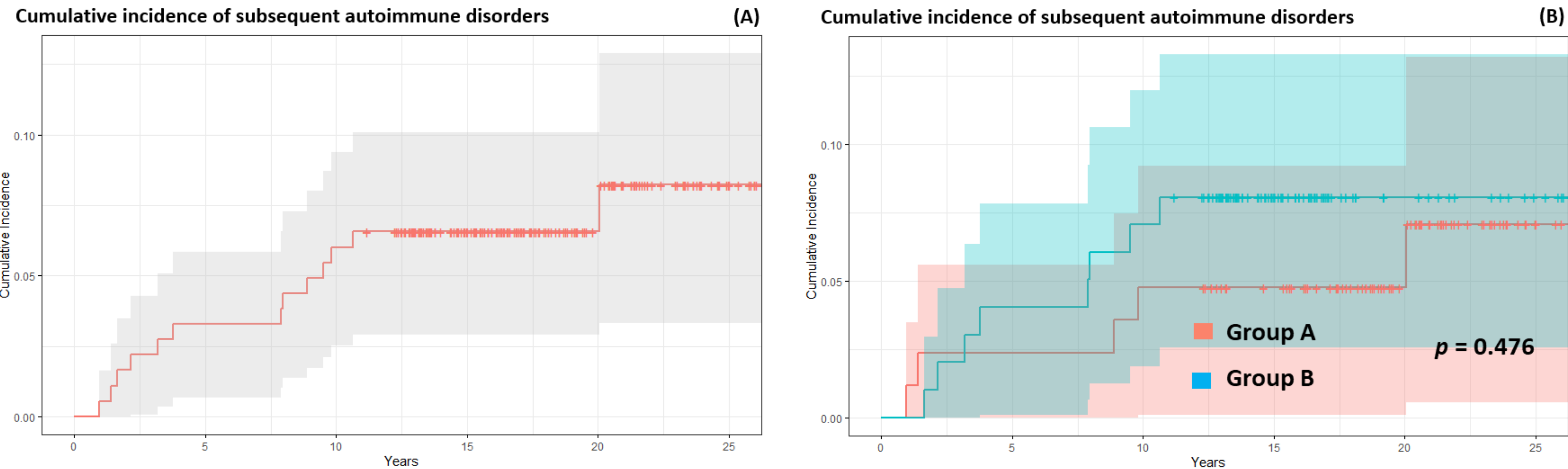


Figure 3 Subsequent autoimmune disorders developed 6.6% cumulatively over 15 years (A). No significant difference between underwent limited resection or thymectomy (15 years cumulative incidence rate: 4.8% vs 8.1%, p = 0.476) (B)