



The prospective database on thymic epithelial tumours from the European Continent

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We would like to congratulate on Ruffini and colleagues for this excellent work and appreciate the privilege to write an invited Editorial Comment on their recent article published in *the European Journal of Cardiothoracic Surgery* (1). In summary, they presented the results of the European Society of Thoracic Surgery (ESTS) prospective thymic registry and compare mainly with the ESTS thymic retrospective database. They have established a prospective thymic registry that collected 1,122 patients from 75 ESTS institutions between 2007 and 2017. Of note, the database collected not only from European countries but also from a few Asian or African countries. Since thymic epithelial tumors is an orphan tumor for which it is very challenging to perform randomized controlled trials, prospective databases play a major and rigorous role in clinical research. Behind the unparalleled achievement, there should be tremendous efforts and challenges.

Historically, databases of thymic epithelial tumors were developed by general thoracic surgeons since a majority of thymic epithelial tumors are surgically resected. Existing retrospective databases on thymic epithelial tumors included the ESTS thymic retrospective database, the database of International Thymic Malignancy Interest Group (ITMIG), that of Japanese Association for Research on Thymus (JART), The National Cancer Data Base (NCDB), that of Korean Association for Research on Thymus (KART), and that of Chinese Alliance on Research in Thymomas

(ChART) (2-6). All of the databases contributed to establishing staging systems and invaluable guidelines on treatment of thymic epithelial tumors, whereas all of those databases suffered from data incompleteness on patient background, tumor characteristics, and survival information. To overcome drawbacks of retrospective databases, ESTS started its prospective thymic registry in 2013, ITMIG had a similar attempt in 2012 (7), now JART is building a prospective registry of thymic epithelial tumors.

Differences between the ESTS retrospective database and the ESTS prospective database were an increased use of minimally invasive techniques (video-assisted thoracoscopic surgery and robotic assisted thoracoscopic surgery) and a wider use of perioperative chemotherapy, which presumably reflect development of surgical techniques and chemotherapy agents. Patient background (age, gender, and paraneoplastic syndromes) and tumor characteristics (World Health Organization histology, Masaoka stages), and the rate of complete resection appeared similar between retrospective and prospective databases, which means their retrospective database already collected sufficient and good-quality data.

The strengths of prospective database include improvement in data completeness and a potential platform for future international clinical trials or observational studies, although currently a majority of enrolled clinical trials on thymic epithelial tumors are not international (8).

Besides, their prospective database has been developing further information about the staging of clinical tumor-node-metastasis (TNM) and pathological TNM including the node descriptor since the ITMIG/the International Association for the Study of Lung Cancer nodal map was incorporated into thymic registry in 2016.

Learning from the recent seminal work by Ruffini and colleagues, other continents also should strive to establish or refine prospective databases on thymic epithelial tumors. We should aim to establish a standard, international, prospective database on the surgically or non-surgically treated thymic tumors in the future.

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Footnote

Conflicts of Interest: The authors have no conflicts of interest to declare.

Ethical Statement: The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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