

AB018. Local recurrence of thymoma following minimally invasive resection: a retrospective case series

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Background: Surgery remains the mainstay treatment for non-metastatic thymic epithelial tumors (TETs) and has traditionally been performed via an open approach. Minimally invasive techniques have gained popularity with the aim of decreasing postoperative morbidity. However, there is concern that these techniques could increase the risk of local relapse. We undertook a retrospective institutional review of thymoma patients presenting for evaluation of local disease after surgery utilizing minimally invasive approaches.

Methods: A database of TET patients evaluated at Indiana University from 1997 to 2022 was queried. From this database, we identified and reviewed 19 thymoma patients who underwent minimally invasive surgery and subsequently developed local recurrence.

Results: The median age in this cohort was 46 years (range, 14–70 years) and included 9 female and 10 male patients. At the time of initial surgery, the distribution of stages was I (n=5), II (n=10), and III (n=3) and WHO histologic classifications were A/AB (n=3) and B1-3 (n=15); one patient's initial pathology could not be determined. The median tumor size was 6.2 cm (range, 3–10.2 cm).

Seventeen patients were operated on at outside institutions, while two had their surgeries at Indiana University. Surgical approaches included unilateral video-assisted thoracic surgery (VATS) (n=7), unilateral robot-assisted thoracic surgery (RATS) (n=8), bilateral VATS (n=2), and the Chamberlain procedure (n=2). Fifteen patients had R0 resections, while 4 had microscopic positive surgical margins (R1). Seven patients received adjuvant radiation therapy. All patients had pleural recurrence ipsilateral to the surgical approach. Ten patients also had mediastinal recurrence; 8 of whom had R0 resection during the initial surgery. The median time to recurrence was 31 months (range, 6–130 months).

Conclusions: Our cohort of patients who presented for evaluation of thymoma recurrence after a minimally invasive surgical approach had median tumor size greater than 5 cm and higher World Health Organization (WHO) classifications. Relapses were identified as late as 10 years following surgery. While it remains unclear whether local recurrence was related to dissemination during surgery, the finding of ipsilateral pleural space relapse in all cases is strongly suggestive. This case series demonstrates the need for carefully controlled studies and long-term follow-up to determine optimal surgical approaches for thymoma.

Keywords: Thymoma; video-assisted thoracic surgery (VATS); robot-assisted thoracic surgery (RATS); pleural recurrence

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Footnote

Conflicts of Interest: All authors have completed the ICMJE uniform disclosure form (available at <https://med.amegroups.com/article/view/10.21037/med-23-ab018/coif>). 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. The study was conducted in accordance with the Declaration of Helsinki (as revised in 2013). The study was approved by the Institutional Ethics Board of Indiana University-Indianapolis No.: IRB00000219 and individual consent for this retrospective analysis was waived.

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