

Regardless of the surgical approach for a thymectomy, the most important imperative remains an excellent oncologic resection. There are certain circumstances where a thymoma can be removed through a minimally invasive approach and an optimal outcome can be achieved. Unfortunately, as minimally invasive approaches have become more popular, this concept has been lost and patients have had the tumor capsule violated, a suboptimal thymectomy, or catastrophic intraoperative events. In the hands of an experienced surgeon who is trained in thoracic oncology with a special interest in thymic tumors, I believe a minimally invasive thymectomy is merely another tool in our tool box to offer patients a quicker recovery, less blood loss, and less pain. Minimally invasive thymectomy should not always be employed for thymic tumors. Large tumors that invade great vessels or have extracapsular extension are likely better resected with an open approach.

There are a variety of ways that the thymus can be removed. Outside of traditional open approaches, a unilateral or bilateral approach with minimally invasive techniques as well as subxiphoid approach are all options. I would emphasize the importance of identifying the phrenic nerve on both sides whenever a resection is performed. Any minimally invasive approach that sacrifices good visualization, safe surgery, and a thorough resection is suboptimal. It is because of this that I prefer to perform a bilateral minimally invasive approach. Five mm ports can be placed through 3 intercostal incisions on both sides of the chest with excellent visualization. Cervical approaches can also provide excellent visualization for the superior aspect of the thymus and subxiphoid approaches are often less painful, but may provide a challenge when trying to visualize the lateral aspect of the thymus and phrenic nerves.

Regardless of the approach, the surgeon should focus on attention to detail, accurate staging, down-staging when the tumor is invading great vessels, R0 resection, preservation of the phrenic nerves, resecting bilateral superior horns, resecting all tissue between the innominate vein to the diaphragm, resecting all tissue from the posterior aspect of the sternum to the pericardium, resecting all tissue from the left phrenic nerve to the right phrenic nerve, removing the thymus with a “no-touch” technique preserving the capsule, and careful communication with oncology partners and the pathology team. Multidisciplinary care should always be involved when complex cases such as these are encountered.

The 2 objectives of an excellent thymectomy remain safety and a good oncologic outcome. Because survival from the thymic tumors is measured over a 10-year span instead of the traditional 5-year span, many studies do not include appropriate patient follow-up or standardized approaches. The emphasis of this book will be on minimally invasive techniques as surgeons endeavor to acquire the tools required to perform an optimal thymectomy.

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