

AB017. Oncological outcomes of robotic extended thymectomy for early stage thymoma compared to sternotomy: a retrospective single centre institution analysis

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Background: Thymoma is the most common primary tumor of the mediastinum. Up until two decades ago, the only surgical technique for treating early stage thymoma was median sternotomy but in the last few years minimally invasive techniques, including robotic surgery, have significantly improved. In this single centre retrospective study, we analysed the oncological outcomes of the patients underwent robotic radical thymectomy for early stage thymoma compared to patients underwent sternotomy.

Methods: We retrospectively reviewed the patients who underwent radical thymectomy for thymoma between 2013 and 2018 at our institution. After the propensity match score analysis we selected two groups (robotic *vs.* sternotomy) of 30 patients that were homogeneous for sex, age, Masaoka stage, histology and tumor size. We evaluated the surgical and the oncological outcomes of the two groups. The overall survival was evaluated with the Kaplan-Meier method.

Results: Results are summarized in Table 1. There were 37 males and 23 females. Ten patients presented myasthenia gravis at the diagnosis. Median age was 57.4±17.1. Average diameter of the tumor was 3.1±2.1 cm. The sternotomy

group presented a significantly greater postoperative major morbidity (P=0.02) and hospital stay (P=0.001). Five patients received adjuvant radiotherapy, only one of the robotic groups. After a mean follow up of 37.7±22.2 months five patients died but only one of the sternotomy groups for a thymoma relapse. Analysis of survival showed that the two groups did not presented difference in terms of overall survival.

Conclusions: In the present study we showed that the robotic surgery could be a valid alternative to standard median sternotomy for the treatment of the early stage thymoma. Despite a longer follow-up is needed, robotic surgery group reported a less postoperative complications rate and less hospital stay with comparable oncological outcomes.

Keywords: Robotic surgery; thymoma; sternotomy

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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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