



003

Association of Robotic Pleurectomy and Cytoreduction with Hyperthermic Intrathoracic Chemotherapy (HITHOC) for pleural recurrence of Type AB Thymoma

Juliana Vieira de Oliveira Salerno¹, Hyroan Brandell Pereira Correa¹, Paula Duarte D'Ambrosio¹, Fabio Eiti Nishibe Minamoto¹, Jaqueline Shaparini Fonini², Alberto Jorge Monteiro Dela Vega¹, Ricardo Mingarini Terra¹

¹ Thoracic Surgery, Hospital Israelita Albert Einstein, São Paulo, SP, Brazil.

² Thoracic Surgery, Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brazil.

Category: Robotic Technology in Thoracic Diseases

DOI: 10.31744/einstein_journal/2024ABS_BTS_ST0003

Juliana Vieira de Oliveira Salerno - <https://orcid.org/0000-0002-3731-464X>
Hyroan Brandell Pereira Correa - <https://orcid.org/0009-0004-4621-6939>
Paula Duarte D'Ambrosio - <https://orcid.org/0000-0002-9901-3973>
Fabio Eiti Nishibe Minamoto - <https://orcid.org/0000-0001-9012-854X>
Jaqueline Shaparini Fonini - <https://orcid.org/0000-0002-1497-491X>
Alberto Jorge Monteiro Dela Vega - <https://orcid.org/0000-0002-3359-8278>
Ricardo Mingarini Terra - <https://orcid.org/0000-0001-8577-8708>

Corresponding author

e-mails: juliana.salerno1@gmail.com and pauladuartedambrosio94@gmail.com

Introduction: Although usually of an indolent nature, thymoma recurrence rates vary between 15% and 50%.⁽¹⁾ While surgery remains the cornerstone of treatment, advanced or recurrent thymomas present significant challenges due to their invasive nature and propensity for local recurrence. Hyperthermic intrathoracic chemotherapy (HITHOC) has emerged as a promising adjunctive therapy to address these challenges.^(2,3) This case report presents the utility and outcomes of HITHOC associated with robotic-assisted thoracic

surgery (RATS) in the management of a recurrent thymoma.

Methods: This retrospective case had demographic, perioperative, and postoperative data gathered, analyzed, and reported with descriptive statistics.

Results: We present a case of a 41-year-old female, with a history of Type AB Thymoma, resected in 2021 measuring 9.4 cm. At the time, histopathological analysis revealed an intact capsule, without microscopic invasion, clear margins, and no angiolymphatic invasion. However, in 2024, during a routine follow-up, a new PET scan revealed an elongated nodular formation in the subaortic region (2.2x1.0cm), with an uptake of 4.5, suggesting recurrence. Additionally, another smaller nodular formation was identified, inferior to the described lesion, measuring 0.5cm, without significant uptake. In light of these findings, after multidisciplinary discussion, cytoreduction and adjuvant intrapleural hyperthermic chemotherapy were opted for. Utilizing the da Vinci XI robotic platform, complete parietal pleurectomy and resection of the lesions on the left visceral pleura, pericardium, and subaortic lymph node were performed. Subsequently, the tubes for infusion and drainage of the HITHOC were placed and after closing the thoracic cavity, hyperthermic chemotherapy with cisplatin and doxorubicin was conducted for 60 minutes, maintaining the temperature around 42°C with continuous monitoring. After completion, the pleural cavity was opened, hemostasis was revised, and two 28 Fr drains were placed. In the postoperative period, the patient was successfully extubated, remaining in the ICU for one day for intensive monitoring. Her recovery proceeded without complications, and after seven days the drains were removed. On the seventh day, the patient was discharged from the hospital. The patient continues to be regularly monitored, and so far has shown no signs of recurrence.

Conclusion: This case report highlights the challenges faced in managing recurrent. Thymoma and underscores

the efficacy of minimally invasive surgical approach with Robotic Surgery combined with HITHOC in an attempt to control the disease and improve patient survival.

Keywords: Pleural cavity; Chemotherapy; Cytoreduction surgical procedures; Thymoma

■ REFERENCES

1. Chiappetta M, Lococo F, Zanfrini E, Moroni R, Aprile V, Guerrero F, et al. The International Thymic Malignancy Interest Group Classification of Thymoma Recurrence: Survival Analysis and Perspectives. *J Thorac Oncol.* 2021;16(11):1936-45.
2. Aprile V, Bacchin D, Korasidis S, Nesti A, Marrama E, Ricciardi R, et al. Surgical treatment of pleural recurrence of thymoma: is hyperthermic intrathoracic chemotherapy worthwhile? *Interact Cardiovasc Thorac Surg.* 2020;30(5):765-72.
3. Aprile V, Bacchin D, Korasidis S, Ricciardi R, Petrini I, Ambrogi MC, et al. Hyperthermic Intrathoracic Chemotherapy (HITHOC) for thymoma: a narrative review on indications and results. *Ann Transl Med.* 2021;9(11):957. Review.

SGPP number: Not applicable.

CAAE: Not applicable.

Research funding: Not applicable.

The authors declare that the patients in this study consented to their data use with a signed consent form.