

Peer Review File

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Reviewer A

A well-done case series with a relatively high number of cases considering the extremely rare nature of the disease. The radiologic subtleties of this study are clearly explained even for non-radiologists. From a surgeon's point of view, I have some comments.

Line 204: Here it says "...resulting in complete disappearance of the lesion and a favorable prognosis". This is very vague language. How radical were the resections? (R0 vs. R1/R2).

Reply: Thank you for your valuable comments. The radical resections were R0. We have modified our text as advised (see Page 8, line 239).

Line 279: "5 survived for 3-5 years". Is there more specific data on overall survival or recurrence-free survival?

Reply: Thank you for your excellent suggestions. Regrettably, due to some patients being lost to follow-up and others not reaching the 3-year or 5-year postoperative milestones, we are presently unable to furnish data regarding the overall survival or recurrence-free survival of the patients. We aim to enhance this aspect of the study as data collection progresses in the future.

You write that 6 patients underwent curative surgery. Can you provide more information on the surgeries or the technique used? As a surgeon I would be interested.

Reply: Thank you for your wonderful comments. Six patients underwent radical resection via video-assisted thoracoscopic surgery (VATS), comprising two patients who underwent tumor resection with mediastinal lymph node dissection, two patients who underwent tracheal tumor resection with reconstruction of the tracheal carina and mediastinal lymph node dissection, one patient who underwent tracheal tumor resection along with wedge resection of the right upper lung and reconstruction of the tracheal carina and mediastinal lymph node dissection, and one patient who underwent tracheal tumor resection with resection of the right upper lobe and partial resection of the carina with reconstruction. We have modified our text as advised (see Page 8, line 225-239).

Reviewer B

In this manuscript, the Authors analyze CT and PET scan characteristics of primary tracheal lymphoepithelioma-like carcinoma in a series of 13 patients. The manuscript may be of interest due to the rarity of this tumor, the presented series being the largest one reported in the literature to date. However, to increase the interest on the manuscript the Authors should address the potential therapeutic implications of a preoperative diagnosis of lymphoepithelioma-like carcinoma based on the reported CT and PET scan parameters.

Reply: Thank you for your valuable comments. CT effectively delineates the tumor's location, extent, vascular supply, and its relationship with adjacent tissues. PET-CT offers insights into intra-tumoral metabolism and distant alterations. CT and PET/CT scans aid in tumor staging and guide the selection of treatment modalities for patients, such as chemoradiotherapy and surgery. We have modified our text as advised (see Page 4, line 104-106).

Reviewer C

1) First, the authors need to indicate treatment and prognosis in the title.

Reply: Thank you for your excellent suggestions. However, we are sorry that our study's primary focus is on elucidating the CT and PET/CT manifestations of tracheal lymphoepithelial carcinoma. We have not included a detailed information of patient treatment and prognosis. In the future, we can strive to incorporate a more comprehensive exploration of the clinical aspects, including patient treatment modalities and follow-up, to enrich our discussion.

Second, the abstract needs some revisions. The background needs to indicate the clinical question to be answered by this study. The methods need to describe the inclusion criteria, the assessment of clinical factors, CT and PET/CT characteristics, and treatment and prognosis data, as well as how the data were analyzed. The results need to briefly summarize the clinical characteristics of the 13 patients. The conclusion needs to have more detailed comments for the diagnosis of LELC by using enhanced CT and PET/CT.

Reply: Thank you for your valuable suggestions. We have elaborated on the inclusion criteria for patient inclusion, key clinical features, CT and PET/CT characteristics, treatment, and prognosis in the method section. However, due to some missing patient data, we are currently unable to provide more intricate details. Moreover, as our primary focus does not center on clinical treatment, we have not extensively explored this aspect. Given the rarity of this disease, we aspire to accumulate more samples in future endeavors, facilitating further research and discourse on treatment modalities and prognosis.

Third, in the introduction of the main text, the authors need to briefly review what has

been known on the CT and PET/CT characteristics, treatment, and prognosis of LELC, analyze the limitations of prior studies, and analyze the clinical needs for this research focus.

Reply: Thank you for your valuable comments. In a few rare case reports, the imaging findings of tracheal LELC typically manifest as a broad-based tumor located in the lateral wall of the trachea on CT scans, occasionally demonstrating infiltration beyond the tracheal boundaries. However, owing to its infrequency, further research is still needed on the CT and PET/CT characteristics, treatment options, and prognosis of LELC. We have modified our text as advised (see Page 4, line 108-112).

Fourth, in the results, I suggest the authors to use a table to show the clinical characteristics of the 13 cases one by one. I also suggest the authors to provide a detailed case report of a typical one of the 13 cases.

Reply: Thank you for your wonderful comments. We have added a table of the demographic and clinical characteristics of the 13 cases (see Page 13-14, line 394-396).

Patients	Gender	Age	Cough	Expectoration	Hemoptysis	Dyspnea	Chest tightness	Smoking	Disease duration
N1	M	59	+	+	+	-	-	-	3M
N2	F	45	+	-	+	-	-	-	24M
N3	F	40	-	-	-	+	+	-	6M
N4	M	37	+	+	-	+	-	-	2M
N5	M	25	+	-	+	+	-	-	1M
N6	F	63	+	+	-	-	-	-	3M
N7	M	32	+	+	-	-	-	-	10M
N8	M	55	+	+	-	+	-	-	12M
N9	M	66	+	+	-	-	-	+	3W
N10	F	33	-	-	-	-	-	-	1W
N11	F	46	+	+	-	+	-	-	9M
N12	M	6	+	+	-	+	-	+	4M
N13	M	64	+	+	-	-	-	-	4D

Finally, please review and cite some related papers: 1. Sha Z, Wei Y, Gao T, Luo Y, Chen J, Li T, Hu L, Niu X, Lin Z, Lv W, Pei X. Clinical observation of pulmonary lymphoepithelioma-like carcinoma. *J Thorac Dis* 2021;13(10):5683-5690. doi: 10.21037/jtd-21-1369. 2. Pons-Tostivint E. Gemcitabine-capecitabine: a therapeutic option in previously treated advanced primary pulmonary lymphoepithelioma-like carcinoma. *Transl Lung Cancer Res* 2023;12(6):1143-1146. doi: 10.21037/tlcr-23-173. 3. Li W, Zhang X, Huang J, Yang Y. PD-L1 expression in pulmonary lymphoepithelioma-like carcinoma: is it a prognostic biomarker? *Transl Lung Cancer Res* 2022;11(8):1725-1726. doi: 10.21037/tlcr-22-473. 4. Sheng H, He X, Chen Z, Huang K, Yang J, Wei X, Mao M. Development of a haematological indices-based nomogram for prognostic prediction and immunotherapy response assessment in primary pulmonary lymphoepithelioma-like carcinoma patients. *Transl Lung Cancer*

Res 2024;13(3):453-464. doi: 10.21037/tlcr-23-813.

Reply: Thank you for your valuable suggestions. We have thoroughly examined the pertinent references you supplied. However, as our emphasis is on discussing the imaging features of tracheal LELC rather than the treatment and prognosis of pulmonary LELC, we may not be able to incorporate it into our citations. Should we undertake research on pulmonary LELC in the future, we will make a diligent effort to review and cite these references.