Peer Review File

Article information: https://dx.doi.org/10.21037/jtd-23-224

Reviewer A

1) First, the title needs to indicate efficacy and safety, regional arterial embolization combined with surgery vs. surgery alone, and the clinical research design of this study, i.e., a retrospective comparative cohort study.
Reply 1): we have modified our text as advised (see the title)", Thanks very much for your valuable suggestions.

2) Second, the abstract is not standardized and needs further revisions. The background did not describe the knowledge gap on the efficacy and safety of regional arterial embolization combined with surgery and why this treatment strategy is potentially effective and safe. The methods did not describe the inclusion of subjects, the assessment of baseline clinical factors, and measurements of efficacy and safety outcomes. The results need to first briefly summarize the clinical characteristics of the two groups and quantify the findings by reporting effect size measures and accurate P values. Because this is not a RCT, the conclusion is overstated and should be tone down.
Reply 2): 1. We have found this phenomenon in previous clinical work, so we have used retrospective comparative studies to illustrate this view. we have modified our text as advised (see Page 1, line 26-30)". 2. The patients enrolled were all tuberculous disfiguring lung patients who underwent surgical treatment. Among these patients, some patients received arterial occlusion therapy in the internal medicine department for hemoptysis before surgery, and they were included in the observation group. we have modified our text as advised (see Page 1, line 28. Page 2, line1- 2,6-7)".3. we have modified our text as advised, in the conclusion, we cite the data in Table 1 while downplaying the conclusion. Thanks very much for your valuable suggestions.

3) Third, the introduction of the main text needs to review what has been known on the efficacy and safety of regional arterial embolization combined with surgery and surgery alone for oftuberculosis-destroyed lung, what the knowledge gaps are, and why there is a clinical need to compare the two treatments. Please further clarify the clinical significance of this research focus.
Reply 3): Since there are very few literatures about regional arterial embolism combined with surgical treatment in the past, the introduction of the text only reviews the current situation that the surgical treatment of tuberculous destroyed lung is difficult (there are many problems such as intraoperative bleeding and long operation time), and the current situation that arterial embolism is used to treat hemoptysis. The advantage of regional arterial embolism combined with surgical treatment of tuberculous destroyed lung is a phenomenon we found in clinical work. Therefore, the clinical significance of this study is to clarify a method that may be beneficial to the surgical

treatment of tuberculous lesions. Thanks very much for your valuable suggestions

4) Fourth, in the methodology of the main text, please describe the clinical research design, sample size estimation, ethics approval of this study, the assessment of baseline clinical factors, measurements of efficacy and safety outcomes, and, importantly, in the authors' real-world clinical practice, how the two treatments were assigned to the patient, which would assess the existence of systemic bias between the two groups. In statistics, please describe the test of categorical variables and the baseline comparability between the two groups, and when the baseline is not comparable, please describe the multiple regression analysis method. Pleas ensure $P<0.05$ is two-sided.
Reply 4): we have modified our text as advised (see Page 4, line 13-15)", ethics approval of this study (see Page 10, line 9), the assessment of baseline clinical factors, measurements of efficacy and safety outcomes (see Table 1). It should be noted that the two treatment schemes have not been purposefully allocated, but some of the patients who have been admitted to the clinic have hemoptysis. Generally, the hemoptysis patients admitted to the medical department have been treated with arterial embolization before being transferred to surgery for surgical treatment. Some of the hemoptysis patients admitted to the surgical department have also been treated with arterial occlusion first to reduce the risk of massive hemoptysis during the preoperative preparation. There is no statistical difference between the two groups in terms of gender, age, course of disease, etc. Thanks very much for your valuable suggestions.

5) Finally, please consider to cite the below paper: Ruan H, Li Y, Wang Y, Liu F, Hou D, Gong C, Wang J, Liu Z. Risk factors for respiratory failure after tuberculosis-destroyed lung surgery and increased dyspnea score at 1-year follow-up. J Thorac Dis 2022;14(10):3737-3747. doi: 10.21037/jtd-22-610.
Reply 5): we have modified our text as advised (see References, 18). Thanks very much for your valuable suggestions.

Reviewer B

From the point of view of the full text, the author used a regional arterial embolization pre-adaptation combined with surgery to treat tuberculosis damaged lung and achieved good results.
Reply 1: Yes, we have found that the most immediate effect of this method is to significantly reduce intraoperative bleeding, which in turn shortens the time to stop bleeding before the end of the surgery.

In the real world, the surgical treatment of tuberculosis-destroyed lung is difficult, bleeding is too much, and the operation time is long. Although surgery provides the possibility to cure pulmonary tuberculosis, there is a high probability of postoperative complications and infection after simple surgery. Regional arterial embolization is widely used in the treatment of patients with hemoptysis. If combined with regional arterial embolization, it can significantly shorten the operation time, reduce

intraoperative bleeding and reduce the incidence of postoperative complications.
Reply 2: Yes, patients with tuberculosis-destroyed lung have a high probability of postoperative complications, the most direct reason for which is due to the long duration of surgery and anesthesia, as well as excessive intraoperative bleeding, and patients often have anemia and hypoproteinemia after surgery. Our method can directly reduce intraoperative bleeding and shorten the operation time, which is equivalent to reducing the occurrence of postoperative complications from the root cause.

Although regional arterial embolization combined with surgical treatment can reduce the risk of routine surgical treatment, shorten the operation time, and reduce postoperative complications, the number of patients included in this study seems to be a little small, is the results really reliable?
Reply 3: Thanks very much for your valuable suggestions. As you said, due to the impact of real-world patient treatment plans, as the number of patients receiving arterial embolization treatment in our hospital has increased in recent years, we are fortunate to observe the possible advantages of this treatment method. However, as this study is a retrospective study and due to the lack of targeted popularization of this method, the number of cases screened for inclusion in the study is indeed small, and the results may have some bias. On this basis, a prospective study with a large sample may be needed in the future to further verify the results of this study.

4. The use of this method to treat pulmonary tuberculosis damaged lung, then its postoperative drainage can also be used as a reference index?
Reply 4: Thanks very much for your valuable suggestions. We have actually considered this issue, but in clinical work, we have found that the amount of postoperative drainage fluid is affected by many factors.". Firstly, the components of drainage fluid include blood, tissue fluid, lymph, etc. In particular, in patients with pulmonary tuberculosis, in addition to postoperative thoracic bleeding, postoperative drainage fluid is also affected by various factors, such as the size of the wound, the extent and location of pleural adhesion. Even if there is little postoperative chest bleeding, this can lead to high total drainage flow. Due to the above reasons, we have temporarily not included postoperative drainage flow in the observation scope.

Reviewer C

1. Reporting Checklist

a) The Reporting Checklist should be filled as the format: Page Number/Line Number, Section/Paragraph. Please provide the paragraph in the checklist.

Item No	Recommendation	Reported on Page Number/Line Number	Reported on Section/Paragraph
1	(a) Indicate the study's design with a commonly used term in the title or the abstract	Page1/Line3-5	title
	(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Page1/Line26-30	Background
2	Explain the scientific background and rationale for the investigation being reported	Page1/Line26-31	Background
3	State specific objectives, including any prespecified hypotheses	Page1/Line31-34	Background
4	Present key elements of study design early in the paper	Page2/Line1-3	Methods
5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	Page2/Line1-11	Methods
6	(a) ***Cohort study***—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up ***Case-control study***—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls ***Cross-sectional study***—Give the eligibility criteria, and the sources and methods of selection of participants	Page2/Line1-11	Methods

Reply 1a: we have modified our text as advised (see The Reporting Checklist)

b) Figure 1 is not a flow diagram, please fill N/A in the checklist.

13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Page2/Line1-3	Methods
	(b) Give reasons for non-participation at each stage	Page6/Line31-34	Results
	(c) Consider use of a flow diagram	Figure 1	Figure 1

Reply 1b: we have modified our text as advised (see The Reporting Checklist)

c) Please double check if all these information are in the figures and table, the related information should show in the items you fill. If it is not applicable, please fill with N/A.

Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	Figure 1-2 Table 1	Figure 1-2 Table 1
		(b) Report category boundaries when continuous variables were categorized	Figure 1-2 Table 1	Figure 1-2 Table 1
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	Figure 1-2 Table 1	Figure 1-2 Table 1
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Figure 1-2 Table 1	Figure 1-2 Table 1

Reply 1c: we have modified our text as advised (see The Reporting Checklist)

2. Table 1

Please check the spelling.

Surgical manner			
VATS	9(69.2)	11(73.3)	>0.05
Video-assistedsmallincisionthoracicoperation	2(15.4)	2(13.3)	>0.05
Thoracotomy	2(15.4)	2(13.3)	>0.05

Reply 2: we have modified our text as advised (see **Table 1**)

3. References/Citations

Please add this study to the reference list and cite it in the main text.

*Please note that the references should be cited numerically (in round brackets) and consecutively in the order of appearance.

with 1,550mLbeing the most bleeding in a single case. Bai et al. reported 172 patients with tuberculosis-destroyed lung who received surgical treatment, and the blood loss

Reply 3: we have modified our text as advised (see the reference list)

4. You Figure 1 is cited in the wrong place in your text. Please check.

> and the hemostasis of the wound further complicate the operation. In addition(Figure 1), pathological changes in the structure of pulmonary alveoli and local bronchi in the diseased lung lead to long-term local inflammatory infiltration, abnormal capillary

Reply 4: we have modified our text as advised(see Page 7, line 22)"]

5. The below sentence is not completed. What is “the above”? Please revise.

Combinations of the above greatly increase the risk of postoperative complications. In combination with previous treatment experience, our results indicate that patients who

Reply 5: we have modified our text as advised (see Page 8, line 2-4)