Supplementary Material

Figure S1. Forest plot of Empyema outcome

Figure S2. Forest plot of pain outcome

Figure S3. Forest plot of pneumonia outcome

Figure S4. Forest plot of post-op complications outcome

Figure S5. Forest plot of post-op death outcome

Figure S6. Forest plot of pulmonary edema outcome

Figure S7. Forest plot of wound infection outcome

Figure S8. Forest plot of fever outcome

Figure S9. Forest plot of reexpansion edema outcome

Figure S10. Forest plot of dyspnea outcome

Table S1. Definition of Success of studies included in this meta-analysis

Table S2. Definition of Failure of studies included in this meta-analysis

Figure S1. Forest plot of Empyema outcome

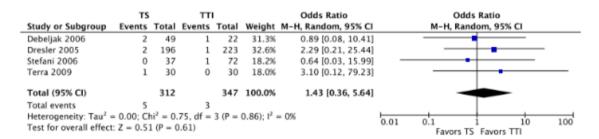


Figure S2. Forest plot of pain outcome

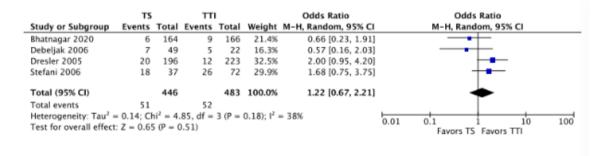


Figure S3. Forest plot of pneumonia outcome

	TS TTI			Odds Ratio	Odds Ratio		
Study or Subgroup	Events	Total	Events	Total	Weight	M-H, Random, 95% CI	M-H, Random, 95% CI
Bhatnagar 2020	7	164	10	166	65.0%	0.70 [0.26, 1.87]	
Stefani 2006	2	37	0	72	16.3%	10.21 [0.48, 218.39]	
Terra 2009	1	30	1	30	18.7%	1.00 [0.06, 16.76]	-
Total (95% CI)		231		268	100.0%	1.15 [0.30, 4.46]	
Total events	10		11				
Heterogeneity: Tau2 =	0.48; Ch	$1i^2 = 2$.	73, df =	2(P =	0.26); I ² -	- 27%	0.01 0.1 1 10 100
Test for overall effect:	Z = 0.23	1 (P = 0)	.84)				Favors TS Favors TTI

Figure S4. Forest plot of post-op complications outcome

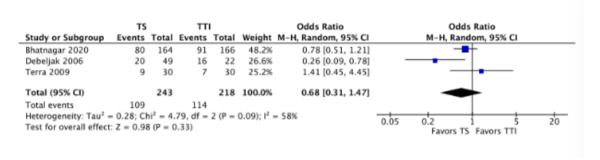


Figure S5. Forest plot of post-op death outcome

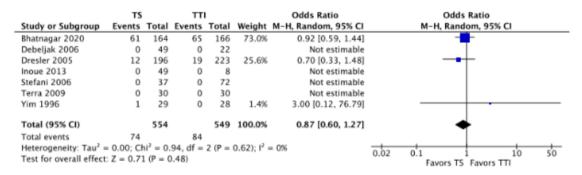


Figure S6. Forest plot of pulmonary edema outcome

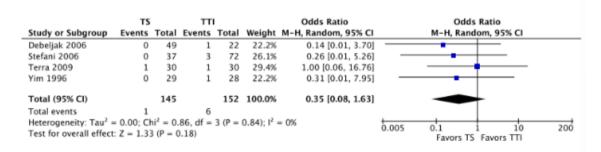


Figure S7. Forest plot of wound infection outcome

Oterate			No pretrea		Maladad	0.0	050/ 01	Odds Ratio
Study	Events	Total	Events	Total	Weight	OR	95% CI	MH, Random, 95% CI
Dresler 2005	1	103	1	111	33.7%	1.08	[0.07; 17.47]	
Stefani 2006	1	37	1	72	33.4%	1.97	[0.12; 32.45]	
Terra 2009	1	30	1	30	32.9%	1.00	[0.06; 16.76]	
Yim 1996	0	29	0	28	0.0%			
Total (95% CI)	3	199	3	241	100.0%	1.29	[0.26; 6.48]	
Heterogeneity: Ta	$au^2 = 0$; Chi^2	= 0.14, 0	f = 2 (P = 0.9)	(3); $I^2 = 0$)%		_	
Test for overall ef	ffect: $Z = 0.3$	31 (P = 0.	760098)	,,				0.1 0.5 1 2 10
								Favors TS Favors TTI

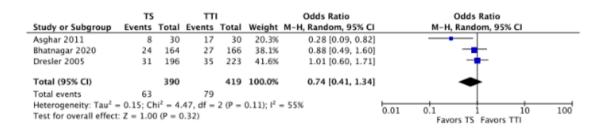
Figure S8. Forest plot of fever outcome

	Pretre	atment	No pretrea	atment				Odds Ratio
Study	Events	Total	Events	Total	Weight	OR	95% CI	MH, Random, 95% CI
Debeljak 2006	6	41	4	21	9.9%	0.73	[0.18; 2.93]	
Dresler 2005	70	103	69	111	60.0%	1.29	[0.73; 2.27]	-
Stefani 2006	13	37	28	72	28.1%	0.85	[0.37; 1.94]	—
Terra 2009	3	30	0	30	2.1%	7.76	[0.38; 157.14]	-
Total (95% CI)	92	211	101	234	100.0%	1.13	[0.73; 1.75]	+
Heterogeneity: Ta	$au^2 = 0$; Chi^2	= 2.64, 0	if = 3 (P = 0.4)	45); $I^2 = 0$)%			
Test for overall ef	ffect: $Z = 0.5$	64 (P = 0)	590326)					0.01 0.1 1 10 100
								Favors TS Favors TTI

Figure S9. Forest plot of reexpansion edema outcome

	Pretre	atment	No pretrea	atment				Odds Ratio
Study	Events	Total	Events	Total	Weight	OR	95% CI	MH, Random, 95% CI
Stefani 2006	3	37	3	72	59.3%	2.03	[0.39; 10.59]	
Terra 2009	1	30	1	30	20.4%	1.00	[0.06; 16.76]	-
Yim 1996	1	29	1	28	20.3%	0.96	[0.06; 16.21]	•
Total (95% CI)	5	96	5	130	100.0%	1.51	[0.42; 5.39]	
Heterogeneity: Ta	$au^2 = 0$; Chi^2	= 0.30, c	f = 2 (P = 0.8)	$36); I^2 = 0$	1%			
Test for overall ef				-				0.1 0.5 1 2 1 Favors TS Favors TTI

Figure S10. Forest plot of dyspnea outcome



Tabel S1. Definition of treatment success of studies included in this meta-analysis

Study	Definition of Success
Bhatnagar, 2020	Lack of further need for removal of ≥100 mL of fluid during thoracentesis; chest tube insertion for fluid management; insertion of an indwelling pleural catheter; or thoracoscopy of any kind on the same side as the trial intervention during the follow-up period
Dresler, 2005	No radiological recurrence
Terra, 2009	Lack of both symptoms and further need for pleural procedures recurrence
Yim, 1996	No radiological recurrence, however symptomatic patients who needed further procedures identified
Asghar, 2011	N/A
	Lack of both symptoms and further need for pleural procedures
	recurrence and chest X-ray showed total or partial (≥50%)
Debeljak, 2006	resolution of the previous pleural effusion, all within the first month
Inoue, 2013	Chest tube successfully removed when fluid drainage decreased to less than 200 mL per day and radiography with a pleural effusion occupying less than one-third of the pleural space
Stefani, 2006	To evaluate the success of pleurodesis, thoracenteses were performed, through the catheter, 3, 7, 10, and 15 days after discharge, and chest X-rays were obtained at days 7 and 15

Table S2. Definition of treatment failure of studies included in this meta-analysis.

Study	Definition of Failure
	Failure was considered when a therapeutic procedure was conducted on
Bhatnagar, 2020	the side ipsilateral to their trial intervention, or when the procedure was necessary but not performed
Dresler, 2005	Not defined but recurrence with radiologic evidence of fluid reaccumulation
	Failure was considered when at any time during the postpleurodesis follow-up a new pleural procedure (eg, thoracentesis, chest tube drainage, or thoracoscopy) was necessary. Patients who had
Terra, 2009	worsening symptoms (dyspnea and cough) associated with radiologic recurrence were considered candidates to undergo new pleural procedures
Yim, 1996	Not defined but recurrence with radiologic evidence of fluid reaccumulation
Asghar, 2011	Not defined but recurrence with radiologic evidence of fluid reaccumulation
Debeljak, 2006	Not defined but worsening of symptoms and when a therapeutic procedure was conducted, or when the procedure was necessary but not performed
Inoue, 2013	Not defined but recurrence with radiologic evidence of fluid reaccumulation of more than one-third of the pleural space
Stefani, 2006	Not defined but recurrence with radiologic evidence of fluid reaccumulation