



Is Observation for Traumatic Hemothorax Safe?

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TABLES:

Table 1: Demographics and Clinical Characteristics in patients with traumatic hemothoraces (no tube thoracostomy vs. tube thoracostomy)

Patient characteristics	Total cohort [N=340], n(%)	No TT [N=131], n(%)	TT [N=209], n(%)	p-value
Age (years), mean (SD)	54.8 (21.0)	51.7 (21.4)	56.7 (20.5)	0.031
Age >65	117/340 (34%)	35/131 (27%)	82/209 (39%)	0.018
Male gender	245/340 (72%)	94/131 (72%)	151/209 (72%)	0.921
Charlson Comorbidity Index, median (IQR)	2 (1-5)	1 (0-4)	3 (1-6)	<0.001
Recent anticoagulant use	43/340 (13%)	11/131 (8%)	32/209 (15%)	0.062
Blunt mechanism of injury	298/340 (88%)	112/131 (86%)	186/209 (89%)	0.340
ISS, median (IQR)	20 (16-29)	20 (14-26)	21 (16-33.5)	0.156
Hemothorax ≥300cc	85/340 (25%)	2/131 (2%)	83/209 (40%)	<0.001
Concurrent pneumothorax	113/340 (33%)	30/131 (23%)	83/209 (40%)	0.001
Bilateral hemothoraces	39/340 (11%)	11/131 (8%)	28/209 (13%)	0.159
30-day ventilation-free days, median (IQR)	30 (25-30)	30 (28-30)	30 (23-30)	0.011
Date of injury				0.090
2000-2004	83/340 (24%)	28/131 (21%)	55 (26%)	
2005-2009	116/340 (34%)	54/131 (41%)	62 (30%)	
2010-2014	141/340 (41%)	49/131 (37%)	92 (44%)	

TT, tube thoracostomy; SD, standard deviation; IQR, interquartile range; ISS, injury severity score.

Table 2: Outcomes of patients with traumatic hemothoraces (no tube thoracostomy vs. tube thoracostomy)

Outcome	Total cohort (N=340), n(%)	No TT (N=131), n(%)	TT (N= 209), n(%)	p-value
30-day hospital-free days, median (IQR)	21 (10-26)	26 (16-28)	19 (2-24)	<0.001
Discharge Disposition				
Home	165/340 (49%)	79/131 (60%)	86/209 (41%)	0.001
Rehab	142/340 (42%)	40/131 (31%)	102/209 (49%)	0.001
Hospital Transfer	5/340 (1%)	1/131 (1%)	4/209 (2%)	0.391
Deceased	28/379 (8%)	11/131 (8%)	17/209 (8%)	0.932
Complications				
Empyema	4/340 (1%)	0/131 (0%)	4/209 (2%)	0.111
Iatrogenic pneumothorax	41/340 (12%)	0/131 (0%)	41/209 (20%)	<0.001
TPA administration	36/340 (11%)	0/131 (0%)	36/209 (17%)	<0.001

TT, tube thoracostomy; IQR, interquartile range; TPA, tissue plasminogen activator.

Table 3: Outcomes of patients with traumatic hemothoraces who received thoracostomy (early tube thoracostomy within 24 hours vs. failed observation)

Outcome	Early TT (N=156), n(%)	Failed Observation (N= 53), n(%)	p-value
30-day hospital-free days, median (IQR)	19 (3.5-24.5)	17 (0-21)	0.062
Discharge Disposition			
Home	73/156 (47%)	13/53 (25%)	0.004
Rehab	68/156 (43%)	34/53 (64%)	0.010
Hospital Transfer	3/156 (2%)	1/53 (2%)	0.987
Deceased	12/156 (8%)	5/53 (9%)	0.689
Complications			
Empyema	3/156 (2%)	1/53 (2%)	0.987
Iatrogenic pneumothorax	34/156 (22%)	7/53 (13%)	0.174
TPA administration	28/156 (18%)	8/53 (15%)	0.634

TT, tube thoracostomy; IQR, interquartile range; TPA, tissue plasminogen activator.