

Timing of Thoracic Endovascular Aortic Repair in Traumatic Thoracic Aortic Injury: Immediate Versus Delayed Approach

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Background

- **Blunt thoracic aortic injury (BTAI)**
 - The second leading cause of mortality among patients with multiple trauma
 - Thoracic endovascular aortic repair (TEVAR) → **Treatment Of Choice**
- In hemodynamically unstable patients,

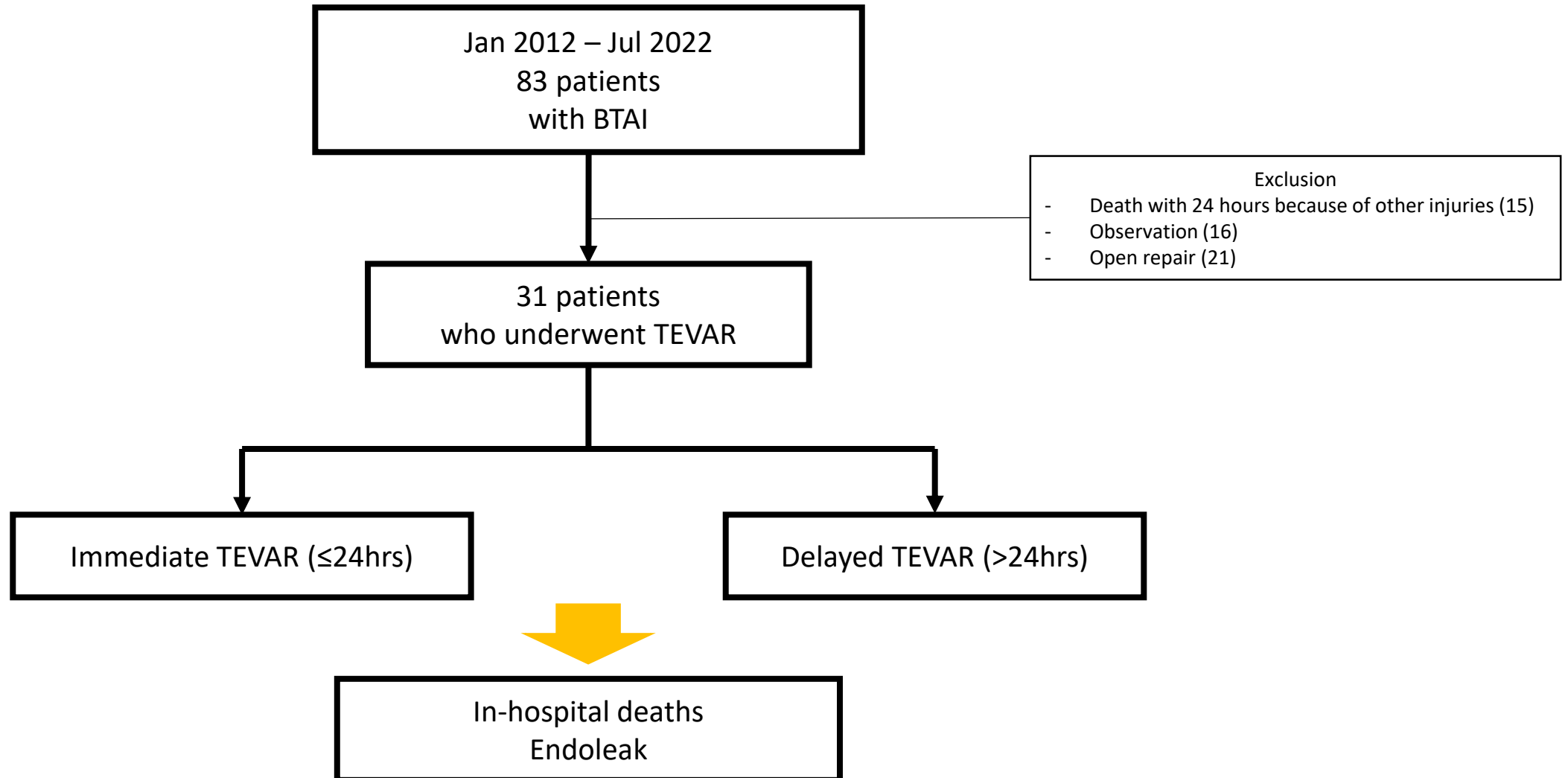
When ?



Immediate

Delayed

Methods



Results

	Within 24 hours	After 24 hours	p-value
N	18	13	
Demographics			
Age (mean \pm SD)	59.56 \pm 11.94	55.77 \pm 17.85	0.888
Male	13	12	
Injury severity (mean \pm SD)			
Glasgow Coma Scale score	12.39 \pm 3.81	9.54 \pm 4.94	0.092
Systolic blood pressure	87.78 \pm 37.50	75.38 \pm 43.52	0.384
Injury severity score	39.12 \pm 17.16	35.92 \pm 8.47	1.000
Revised trauma score	6.46 \pm 1.57	5.25 \pm 2.92	0.263
Trauma injury severity score	59.25 \pm 36.05	50.24 \pm 40.65	0.401
Vasoactive inotropic score (VIS)	9.33 \pm 24.70	26.02 \pm 29.60	0.068
Aortic injury grades	3.17 \pm 0.37	3 \pm 0.39	0.433
Outcomes			
Endoleaks	3	0	0.245
Deaths	2	0	0.497
Hospital stay (mean \pm SD)	40.56 \pm 30.69	70.54 \pm 48.78	<0.05
ICU stay (mean \pm SD)	12.71 \pm 12.75	34.31 \pm 30.63	<0.05

Conclusions

- In the context of multiple trauma patients with elevated VIS, performing TEVAR after initial resuscitation does not appear to lead to an increased incidence of complications, including death or endoleaks.
- Delayed TEVAR might be a viable option in cases where immediate repair is not feasible due to hemodynamic instability.