Use of Conscious Sedation for Thoracic Endovascular Aortic Surgery at a Single Center

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Conscious Sedation for TEVAR

In endo-procedures such as TAVR, conscious sedation (CS) associated with improved:

- **30-day mortality**
- **Hospital length of stay**
- **Less use of inotropic drugs**

However, the national adaptation of CS for TEVAR has been low <4%

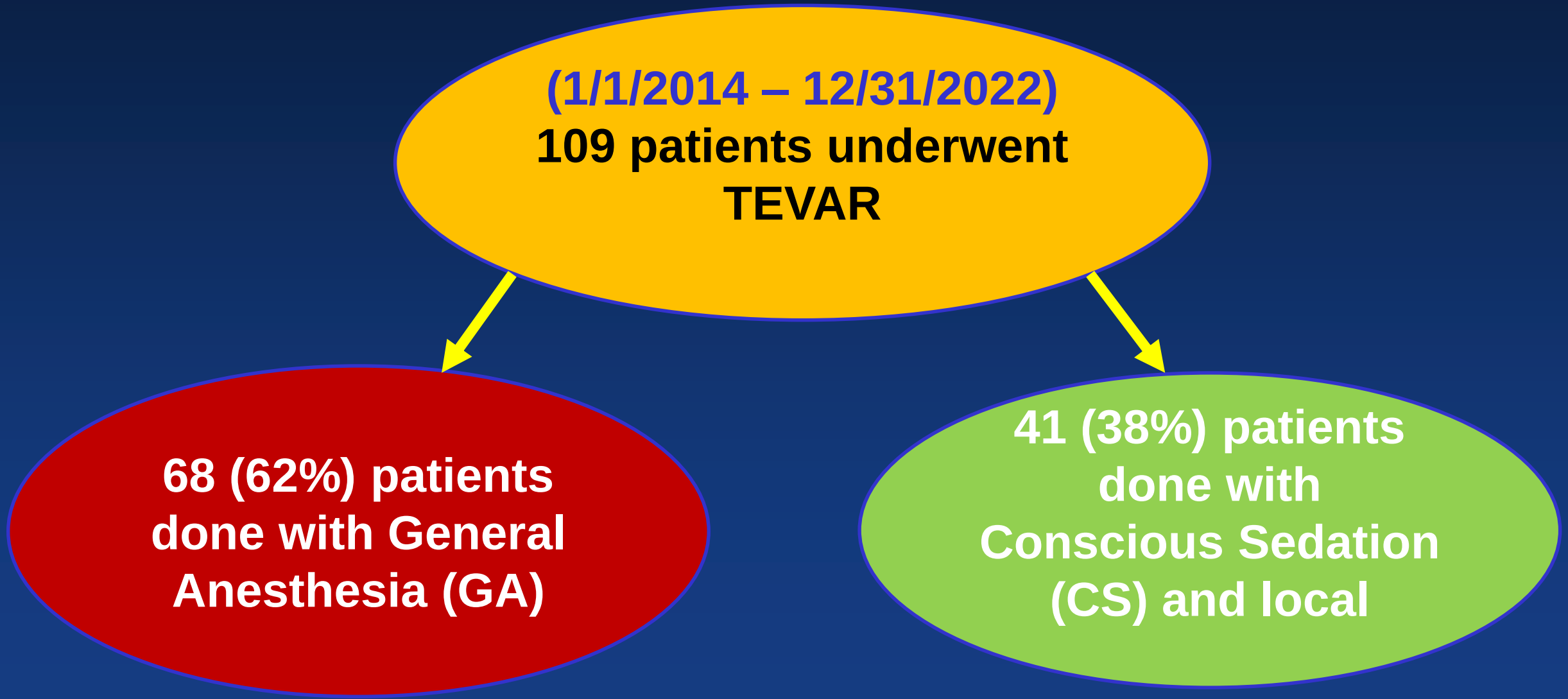
Patrick at al. *JVS* 2022

Study Aims

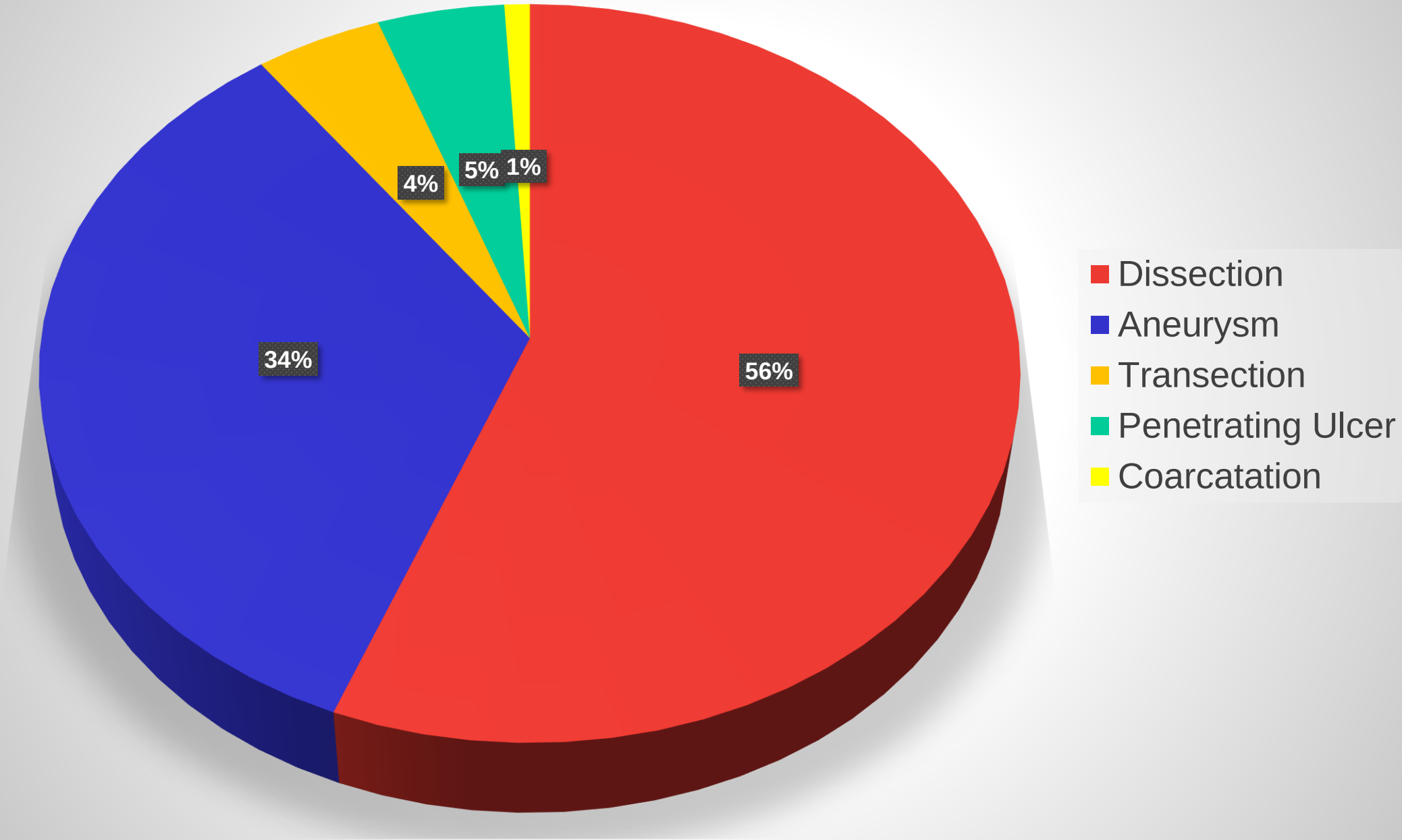
Adopted the use of CS for TEVAR in 2016

- Investigate institutional results for CS versus general anesthesia (GA) for TEVAR
- Explore safety of adapting CS TEVAR for extensive aortic coverage (>2 zones of aortic coverage)

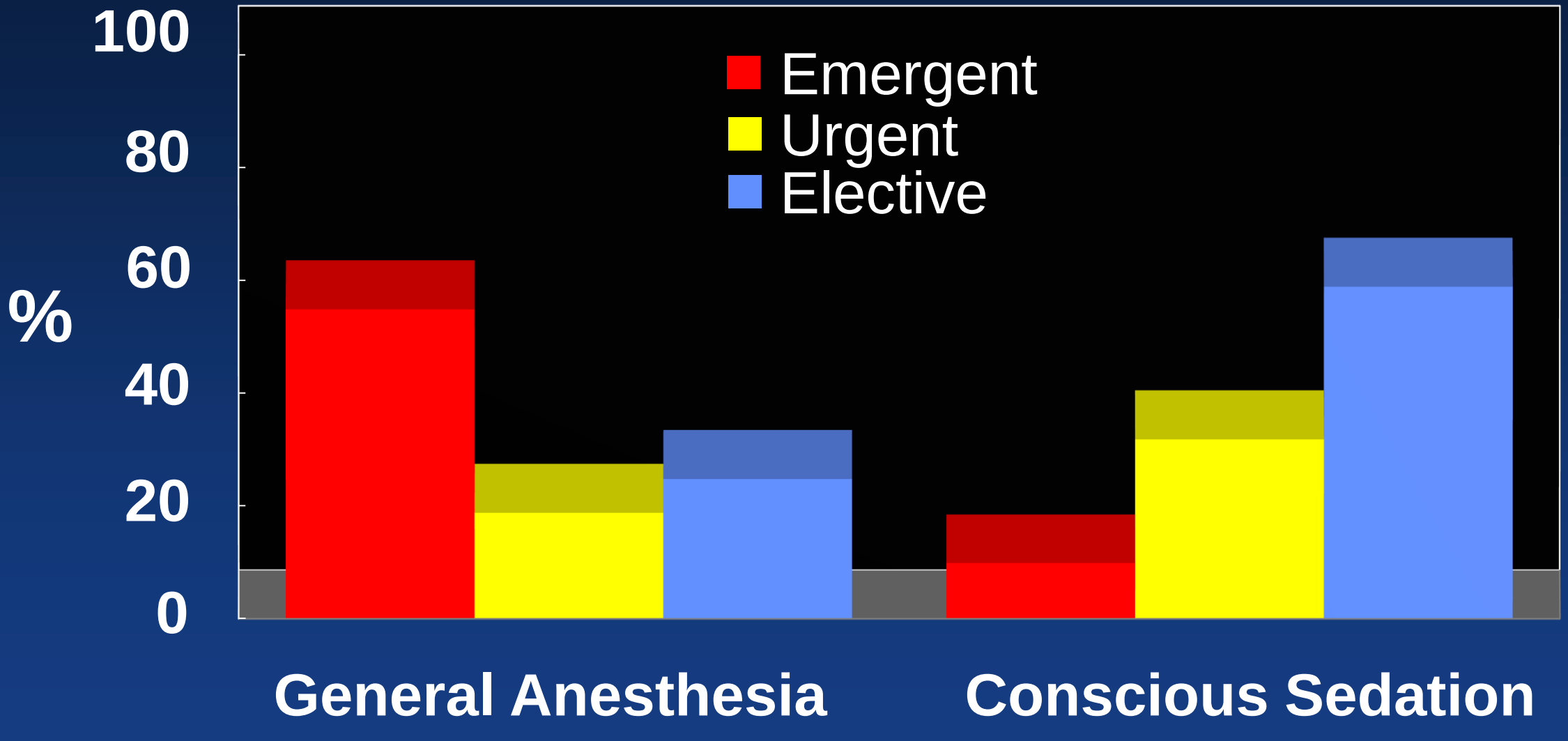
Study Population



TEVAR indications



TEVAR Case Status



Preop/Intraoperative Factors

Characteristics	General Anesthesia TEVAR (N = 68)	Conscious Sedation TEVAR (N = 41)
Preoperative Malperfusion	11 (16%)	1 (3%)
Spinal Drain Usage	31 (45%)	30 (73%)
Percutaneous Access	59 (87%)	40 (98%)
Median Total Operative Time in min (±STD)	217 (±118)	224(±65)

Postop Outcomes

Characteristics	General Anesthesia TEVAR (N = 68)	Conscious Sedation TEVAR (N = 41)
In-hospital Mortality	10 (14%)	0
Prolonged Ventilation	18 (27%)	0
Renal Failure	12 (18%)	2 (5%)
Need for Vasopressor Use	26 (38%)	6 (15%)
Hospital LOS days (±STD)	7 (±13)	7(±9)

Outcomes for Extensive TEVAR (>2 Zones of Coverage)

Characteristics	General Anesthesia TEVAR (N = 44)	Conscious Sedation TEVAR (N = 26)
In-hospital Mortality	7 (16%)	0*
OR Times (±STD)	285 (±121)	224 (±65)*

Conclusions

Most CS TEVAR cases were done in the elective setting

CS with local for TEVAR is safe and has potential benefits with improved unadjusted outcomes

More research needed on barriers to increased adoption of CS for TEVAR