New Intercostal Access for Transcatheter Aortic Valve Replacement (TAVR) - A Single-center Analysis

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Background

Minimalist TAVR is favorable for patients not eligible for transfemoral or transapical access

Methods

- retrospective analysis of data, collected for 10 years (2009-2019)
- comparison of three different surgical TAVR approaches (transaortic via right high parasternal „keyhole“ thoracotomy, conventional transaortic via high sternotomy, transapical)
- 609 patients in total (n = 306 vs. n = 32 vs. n = 271)
- additional intergroup comparison in a 1:1:1 ratio matched by EuroScore

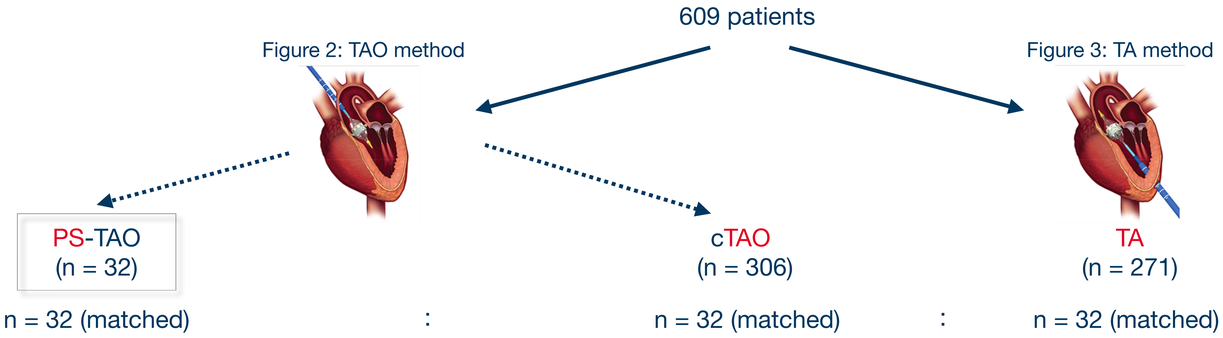
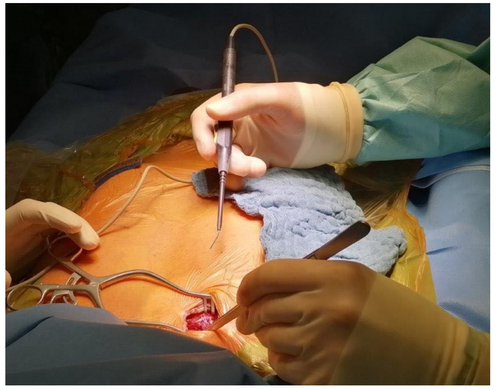
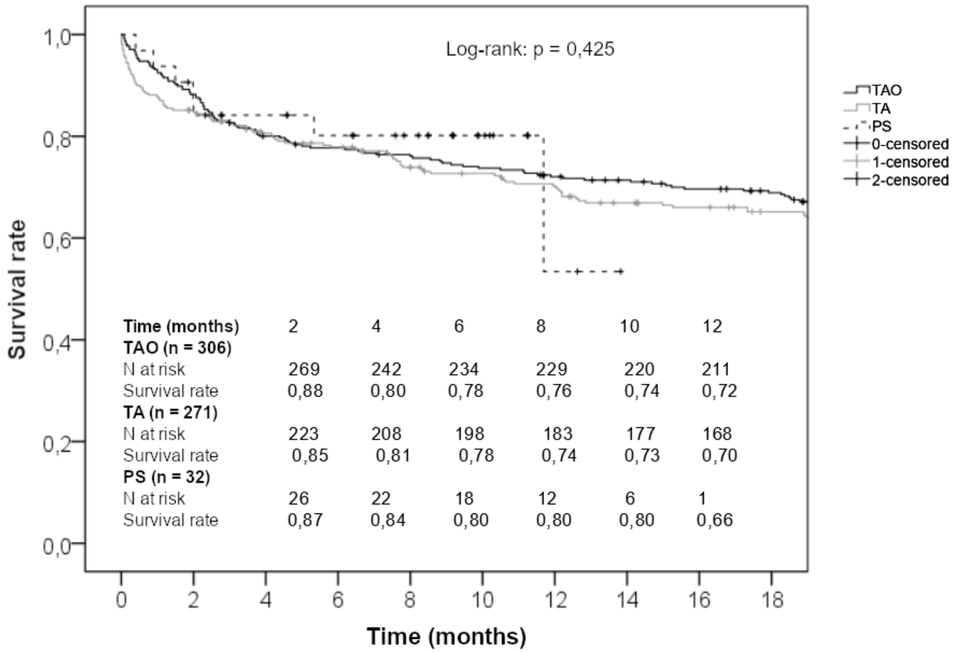


Figure 4: Parasternal keyhole thoracotomy



Results

Figure 1: Kaplan-Meyer curve



Time (months)	2	4	6	8	10	12
TAO (n = 306)						
N at risk	269	242	234	229	220	211
Survival rate	0,88	0,80	0,78	0,76	0,74	0,72
TA (n = 271)						
N at risk	223	208	198	183	177	168
Survival rate	0,85	0,81	0,78	0,74	0,73	0,70
PS (n = 32)						
N at risk	26	22	18	12	6	1
Survival rate	0,87	0,84	0,80	0,80	0,80	0,66

Figure 5: Length of ICU-stay [median, days]*

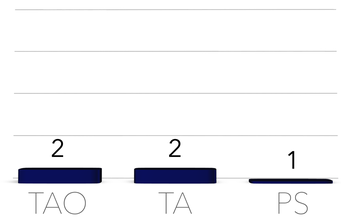


Figure 6: Ventilation rate[%]*

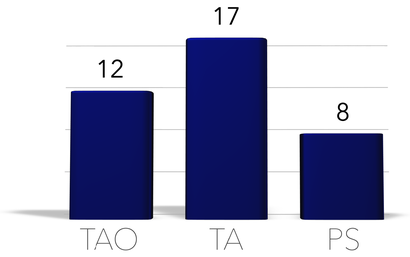


Figure 7: Atrial fibrillation after TAVR [%]

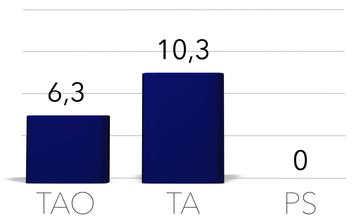
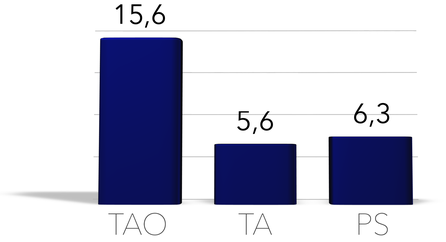


Figure 8: 30d mortality [%]



* p<0,005