The Frequency and Prognostic Impact of Fever Following Trans-Catheter Aortic Valve Implantation

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Disclosure - None

Background and objective

- Fever and occasional infection have been reported after transcatheter aortic valve implantation (TAVI).
- However data concerning the etiology of infectious and non-infectious fever and its prognostic impact are lacking.
- The aim of this study was to identify all patients who develop fever following TAVI, to determine whether it is related to sepsis or an aseptic inflammatory state and evaluate the impact on outcome.

Thomas M. *et al*. Circulation 2010;122(1):62

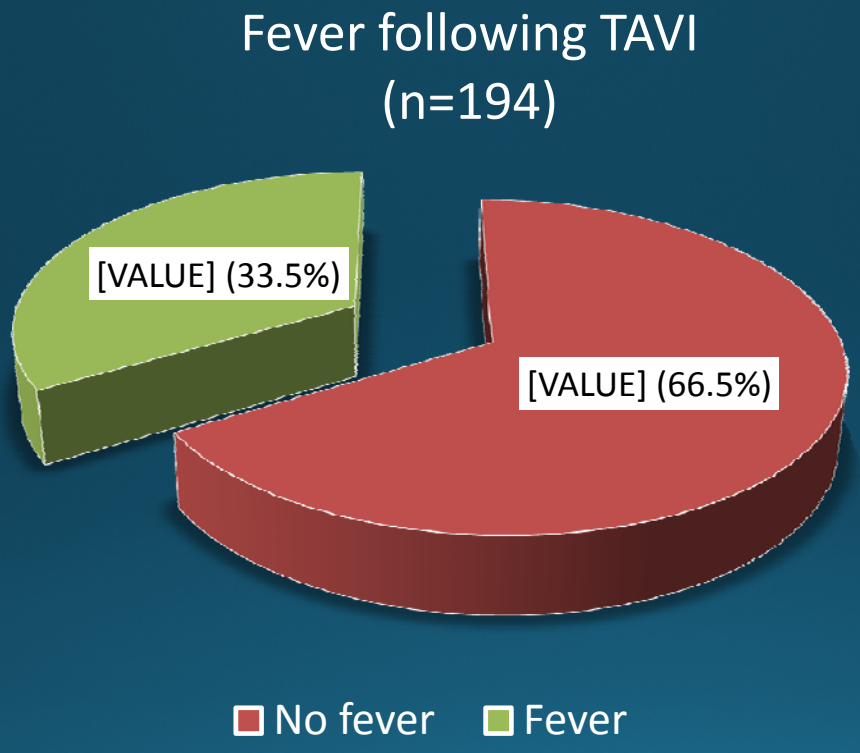
Methods and Patients

- A retrospective cohort study, including all patients who underwent TAVI at Rabin Medical Center, between November 2008 and July 2012 (Edwards SAPIEN or the Medtronic Core Valve).

- We identified and characterized all consecutive patients who developed fever within the first 72 hours following the procedure.

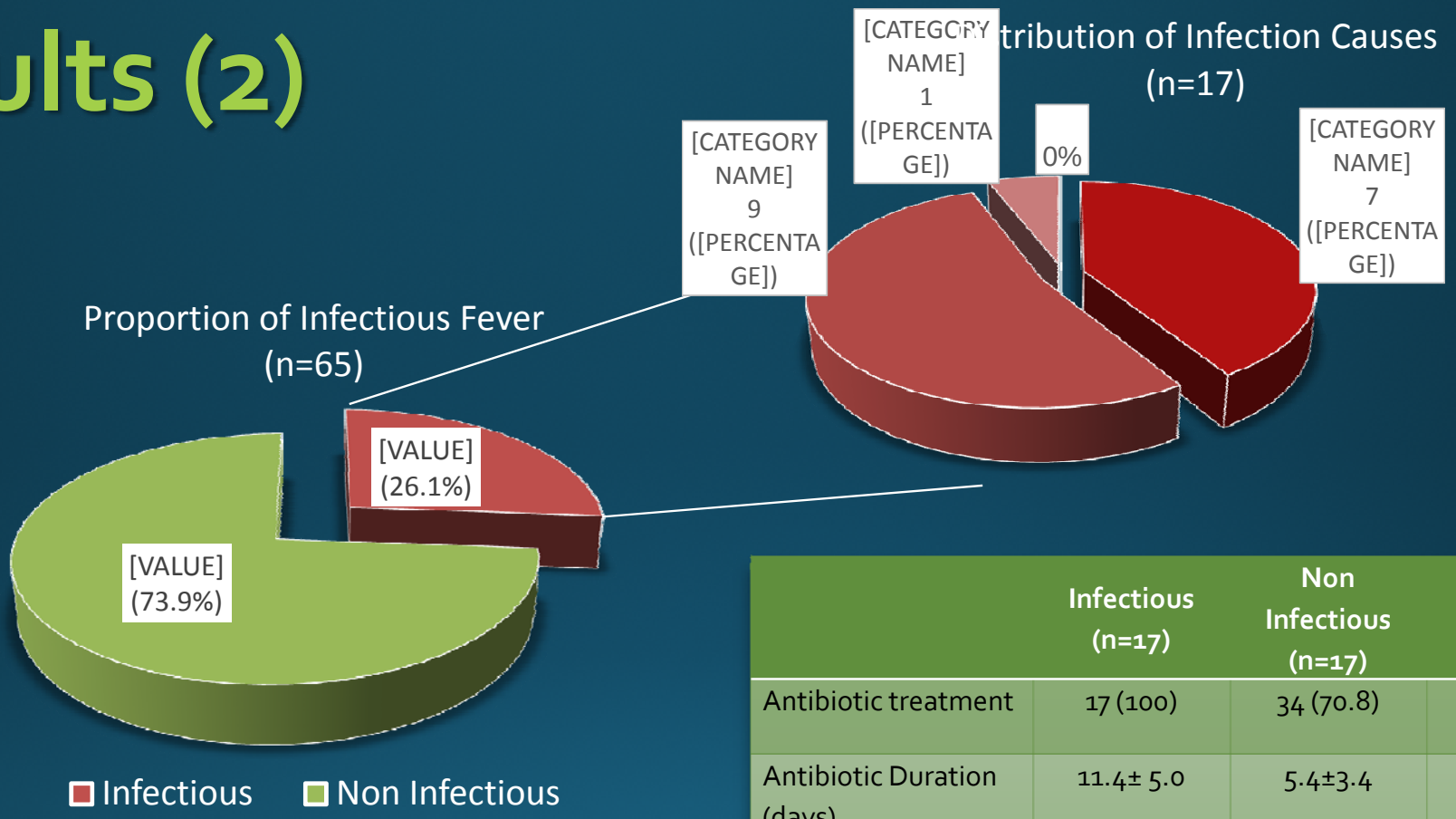
- Baseline patient characteristics, radiographic, laboratory and clinical evidence of SIRS and infection, antimicrobial therapy, microbiology results and other outcomes (death at 30 days and 1 year, shock, renal failure, duration of hospitalization) were collected using a structured case report form (CRF).

Results (1)



Fever, whether infectious or non-infectious, occurred in ~1/3 of treated patients

Results (2)



	Infectious (n=17)	Non Infectious (n=17)	P value
Antibiotic treatment	17 (100)	34 (70.8)	0.01
Antibiotic Duration (days)	11.4± 5.0	5.4±3.4	<0.001
Hospital duration (days)	7.0±4.8	4.3±2	0.001

Fever, whether infectious or not, had no impact on in-hospital complication rate and 1- year survival

Conclusions

- Around 1/3 of patients undergoing TAVI at our institution developed fever during the firs 72 hours after the procedure.
- However, <30% had a suspected or confirmed infectious cause.
- Fever and infection did not increase mortality or rates of adverse outcomes.
- In light of these results, a careful approach may be implemented when dealing with febrile patients following TAVI, thus avoiding unnecessary use of "aggressive" pharmacotherapy and/or broad spectrum antibiotics.