ALL WOMEN A multicenter randomized clinical trial comparing self-expanding ALLEGRA Valve to any other balloon-expandable valve in a Women population

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Demonstrate that the self-expandable Allegra TAVI system provides lower mean gradient assessed by TTE compared to balloon-expandable valve systems in a population of all women patients with symptomatic severe aortic valve stenosis.

Ethical review	Approved WMO
Status	Recruiting
Health condition type	Cardiac valve disorders
Study type	Observational non invasive

Summary

ID

NL-OMON56500

Source
ToetsingOnline

Brief title
ALL WOMEN

Condition

- Cardiac valve disorders

Synonym
symptomatic severe aortic valve stenosis; Severe calcific aortic valve stenosis

Research involving
Human

Sponsors and support

Primary sponsor: Center for European Research Initiatives in Cardiovascular Medicine

(CERIC)
Source(s) of monetary or material Support: NVT AG (SWT),Onderzoek op initiatief van de onderzoeker gefinancierd door een financiële subsidie van de industrie: NVT AG;Morges;Zwitserland; CERIC nam de rol van studiesponsor op zich

Intervention

Keyword: Degenerative aortic valve stenosis, Female patients, Symptomatic severe aortic valve stenosis, TAVI

Outcome measures

Primary outcome

Trans-aortic mean gradient measured by TTE 30 days after the TAVI procedure.

Secondary outcome

Following endpoints will be assessed as defined by VARC-3 Criteria

Technical success (at exit from procedure room)

• Freedom from mortality

• Successful access, delivery of the device, and retrieval of the delivery

system

• Correct positioning of a single prosthetic heart valve into the proper

anatomical location

• Freedom from surgery or intervention related to the device* or to a major

vascular or access-related, or cardiac structural complication

Device success (at 30 days*)

• Technical success

• Freedom from mortality

• Freedom from surgery or intervention related to the device* or to a major

vascular or access-related or cardiac structural complication

• Intended performance of the valve* (mean gradient <20 mmHg, peak velocity <3 m/s, Doppler velocity index >= 0.25, and less than moderate aortic regurgitation)

Early safety (at 30 days)

• Freedom from all-cause mortality

• Freedom from all stroke

• Freedom from VARC type 2-4 bleeding (in trials where control group is surgery, it is appropriate to include only Type 3 and 4 bleeding)

• Freedom from major vascular, access-related, or cardiac structural complication

• Freedom from acute kidney injury stage 3 or 4

• Freedom from moderate or severe aortic regurgitation

• Freedom from new permanent pacemaker due to procedure-related conduction abnormalities

• Freedom from surgery or intervention related to the device

Clinical efficacy (at 1 year)

• Freedom from all-cause mortality

• Freedom from all stroke

• Freedom from hospitalization for procedure- or valve-related causes

• Freedom from KCCQ Overall Summary Score <45 or decline from baseline of >10 point (i.e. Unfavourable Outcome)

* In-hospital may be used if 30-day data are not available.

* Haemodynamic valve performance standards may differ depending on the specific

valve sizes implanted.

Study description

Background summary

Degenerative aortic valve stenosis (AS) is the most common heart valve disease in adults in Western countries and is steadily increasing as the average age of the population increases. Patients with AS are asymptomatic for a long period of the disease course. However, once the first symptoms such as angina, syncope and dyspnea appear, the prognosis is poor. A mortality rate of 25% in the first year and 50% in the second year after the onset of symptoms is reported, despite drug treatment.

Treatments such as open surgical aortic valve replacement (SAVR) and transfemoral transcatheter aortic valve implantation (TAVI), a minimally invasive procedure, have significantly improved long-term survival rates. Today, TAVI has been developed as a standardized interventional procedure with predictable and acceptable risk. Therefore, the number of implanted TAVI prostheses has increased rapidly over the past decade.

The target population of this study, women, make up less than 50% of patients undergoing TAVI. Women and men undergoing TAVI have different baseline characteristics that may impact post-TAVI and long-term events differently. Compared with men, women have a smaller annulus of the aortic valve, a lower origin of the coronary arteries, smaller peripheral vessels, as well as a higher prevalence of osteoporosis and frailty, and a greater risk of bleeding. Women also have a higher prevalence of coexisting valve disease and heart failure.

The ALLEGRA TAVI system TF (NVT AG, Morges, Switzerland) was investigated in NVT's Pilot (NVT01PST) and Pivotal (NVT02PT) studies, respectively. The combined data set from both studies in a population of 81 patients (76.5% female and 23.5% male) showed excellent performance and acceptable safety data, comparable to other self-expanding transcatheter aortic valve prostheses. The purpose of the study is to test the hypothesis that, in a population of only women with symptomatic severe AS, the self-expandable ALLEGRA TAVI system TF provides a superior hemodynamic profile, in terms of a TTE mean gradient, compared to balloon expandable valves.

Study objective

Demonstrate that the self-expandable Allegra TAVI system provides lower mean gradient assessed by TTE compared to balloon-expandable valve systems in a population of all women patients with symptomatic severe aortic valve stenosis.

Study design

Multicenter, randomized versus balloon-expandable valve system, post-market, superiority clinical trial.

Study burden and risks

Risks of adverse events are those of current care TAVI procedures using CE-marked devices. These have been demonstrated to be safe by providing clinical benefit to the patients. Participation in the study does not expose the patients to any medical risk in addition to the current care practice of TAVI procedures and related examinations.
Eligible patients will undergo a standard diagnostic program which includes TTE, cardiac MSCT and coronary angiogram. Pre- and post-procedural blood samples are taken for monitoring purposes as per hospital standard of care. As a result of participation in this study, patients won*t undergo any additional invasive or burdensome examination when compared to a TAVI treatment outside of this study. For postoperative follow up patients are asked to return to the hospital after 30 days, and at 1 year. TTE will be performed during these visits to verify the valve function. TTE is not considered as invasive or to be burdensome for the patients though.

As the participation in the study does not expose the patients to any medical risk in addition to the current care practice of TAVI procedures and related examinations, the research is justified because it contributes to increase the knowledge on the treatment of female patients with aortic valve stenosis.

Contacts

Public
Center for European Research Initiatives in Cardiovascular Medicine (CERIC)

Route des Dailles 2 0
Villars-sur-Glâne 1752
CH
Scientific
Center for European Research Initiatives in Cardiovascular Medicine (CERIC)

Route des Dailles 2 0
Villars-sur-Glâne 1752

CH

Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Elderly (65 years and older)

Inclusion criteria

Subjects will be included if all of the following criteria are met:
1. Female sex
2. Age >= 75 years (according to ESC/EACTS, Guidelines for the management of valvular heart disease)
3. Severe calcific aortic valve stenosis defined as follows: high-gradient aortic valve stenosis (mean pressure gradient across aortic valve > 40 mmHg or peak velocity > 4.0 m/s)
4. Symptomatic aortic valve stenosis with New York Heart Association (NYHA) Class >=II
5. ECG-gated Multi-Slice Computed Tomographic (MSCT) measurements determined an aortic annulus perimeter-derived average diameter >19 mm and <27.4 mm or area-derived diameter >18 and <28 mm
6. Anatomy suitable for trans-femoral TAVI for both devices used in the study, including a minimum femoral diameter of 6 mm.
7. Subject with a documented local Heart Team (HT) indication for TF TAVI
8. Life expectancy longer than 1 year.
9. Willingness to undergo clinical and echocardiographic follow-up after the procedure.
10. Subject can understand the purpose of the clinical investigation, has signed voluntarily the informed consent form and is agreeing to the scheduled follow-up requirements

Exclusion criteria

Subjects will not be included if any of the following criteria are met:
1. Male sex

2. Non-calcific acquired aortic valve stenosis
3. Native unicuspid/bicuspid aortic valve or congenital aortic abnormality
4. Previous implantation of heart valve in any position
5. Severe aortic regurgitation (> 3+)
6. Severe mitral regurgitation (> 3+)
7. Severe tricuspid regurgitation (> 3+)
8. Severe left ventricular dysfunction (Left Ventricular Ejection Fraction (LVEF) < 30%)
9. Echocardiographic evidence of intracardiac mass, thrombus or vegetation
10. Untreated cardiac conduction disease in need of pacemaker implantation
11. Evidence of acute Myocardial Infarction (MI) less than 30 days before signing informed consent
12. Any need for emergency surgery
13. Any active bleeding that precludes anticoagulation
14. Liver failure (Child-C)
15. End-stage renal disease requiring chronic dialysis or creatinine clearance < 30cc/min
16. Pulmonary hypertension (systolic pressure > 80mmHg)
17. A known hypersensitivity or contraindication to all anticoagulation/antiplatelet regimens (or inability to be anticoagulated for the index procedure), to cobalt chromium, to bovine and/or collagen, glutaraldehyde or contrast media
18. Any medical, social or psychological condition that in the opinion of the investigator precludes the subject from giving appropriate consent or adherence to the required follow-up procedures
19. Currently participating in another drug or device trial (excluding observational registries) for which the primary endpoint has not been assessed
20. Subject under judicial protection, tutorship or curatorship (for France only)

Study design

Design

Study type:	Observational non invasive
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Open (masking not used)
Control:	Active
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Recruiting
Start date (anticipated):	09-07-2024
Enrollment:	10
Type:	Actual

Medical products/devices used

Registration:	No

Ethics review

Approved WMO Date:	29-02-2024
Application type:	First submission
Review commission:	MEC-U: Medical Research Ethics Committees United (Nieuwegein)

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
ClinicalTrials.gov	NCT05989074
CCMO	NL85255.100.23