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Repositioning Transcatheter Heart Valves

Tech ID: 34046 / UC Case 2024-975-1

BRIEF DESCRIPTION

A new device designed to improve the process of replacing heart valves through a minimally invasive procedure called transcatheter aortic valve replacement (TAVR).

SUGGESTED USES

This device allows the valve to be repositioned during the implantation procedure.

FEATURES/BENEFITS

By allowing for repositioning, this device could help ensure the valve is placed correctly, reducing the risk of complications such as paravalvular aortic regurgitation (leakage around the valve), myocardial infarction (heart attack), or ischemia (reduced blood flow).

FULL DESCRIPTION

TAVR requires precise placement of a new heart valve, but current imaging technology used during the procedure (mainly X-ray) isn't ideal because it only provides a two-dimensional view of the heart's complex three-dimensional anatomy. This can lead to incorrect valve placement, which might cause serious complications like blocking blood flow to the heart or causing heart rhythm problems. Once the valve is deployed, it's difficult or impossible to adjust its position if it's not placed correctly. This invention aims to address that issue by allowing the valve to be repositioned during the procedure.

Overall, this invention aims to improve the safety and effectiveness of heart valve replacement procedures by providing a way to adjust the position of the valve during the operation.

PATENT STATUS

Patent Pending

STATE OF DEVELOPMENT

Prototype developed

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OTHER INFORMATION

KEYWORDS

Transcatheter aortic valve replacement (TAVR), Heart valve repositioning device, Percutaneous valve replacement, Cardiac valve deployment system, Sheath repositioning technology, Minimally invasive heart surgery, Valve implantation guidance, Adjustable heart valve placement, Medical device for valve retrieval, Aortic valve replacement innovation

CATEGORIZED AS

- » **Medical**
- » Devices
- » Disease:
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