

SPLIT TYPE PRECISELY-ANCHORABLE TRANSCATHETER VALVE-IN-RING SYSTEM

Abstract

A split type precisely-anchorable transcatheter valve-in-ring system comprises a split transcatheter valve-in-ring anchoring stent (10) and a transcatheter artificial biological valve-in-ring (20), wherein the shape and structure of the transcatheter valve-in-ring anchoring stent (10) are matched with the real structure of the annuloplasty ring and supralvalvular and infravalvular tissues after three-dimensional reconstruction based on imaging data of a patient who have undergone valve failure after implantation of a annuloplasty ring (30), the transcatheter valve-in-ring anchoring stent (10) is firstly delivered to the patient's failed annuloplasty ring for release, deformation and alignment with the supralvalvular and infravalvular tissues of the failed annuloplasty ring; the transcatheter artificial biological valve-in-ring (20) is delivered to the transcatheter valve-in-ring anchoring stent (10) for release, the stent of the transcatheter artificial biological valve-in-ring (20) deforms and expands to the functional state of the transcatheter valve-in-ring, causing the transcatheter valve-in-ring anchoring stent (10) to deform again and combine with the expanded transcatheter valve-in-ring, and meanwhile, the re-deformation of the transcatheter valve-in-ring anchoring stent (10) causes the transcatheter valve-in-ring anchoring stent (10) to combine with the subvalvular structure again and anchor.

FIG. 3A