Claims:

1. A heart valve prosthesis capable of anchoring to a native valve leaflet, comprising a valve stent and a valve clamping and fixing device connected to the valve stent, wherein the valve clamping and fixing device comprises a clamping mechanism and an anchoring ring, a proximal end of the clamping mechanism is connected to the valve stent, a distal end of the clamping mechanism is free, and at least part of the anchoring ring is disposed on the clamping mechanism; and the anchoring ring is configured to lift the native valve leaflet after the valve stent is mounted in place, the valve stent and the valve clamping and fixing device are configured to clamp at least one of the native valve leaflet and chordae tendineae tissue between the valve stent and the valve clamping and fixing device, and the anchoring ring is configured to clamp the valve stent after the valve stent is mounted in place;

wherein the valve clamping and fixing device has a first form and a second form, wherein the clamping mechanism is configured to capture the native valve leaflet when the valve clamping and fixing device is in the first form; and when the valve stent radially expands so that the anchoring ring pulls chordae tendineae and drives the native valve leaflet to lift upwards, the valve clamping and fixing device is in the second form;

wherein the anchoring ring is connected to the clamping mechanism, and the clamping mechanism comprises at least one clamping arm.

2. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the clamping mechanism is configured to be located between the native valve leaflet and a ventricular wall when the valve clamping and fixing device is in the first form, and part of the anchoring ring is configured to be located between the native valve leaflet and the chordae tendineae tissue when the valve clamping and fixing device is in the first form.

3. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the valve stent and the clamping mechanism are an integrated structure, and at least part of the clamping mechanism fits against an outer side of the valve stent in a natural state.

4. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the anchoring ring has at least two connection points with the clamping mechanism, and the at least two connection points between the anchoring ring and the clamping mechanism are at different heights; or the anchoring ring has at least two connection points with the clamping mechanism and the valve stent, and a connection point between the anchoring ring and the clamping mechanism, and the connection point between the anchoring ring and the valve stent are at different heights.

5. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the clamping mechanism comprises a single clamping arm, the anchoring ring is connected to the clamping arm and the valve stent, and a height of a connection point between the anchoring ring and the valve stent is lower than a height of a connection point between the anchoring ring and the clamping arm.

6. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 5, wherein in a case where the heart valve prosthesis is configured to treat a mitral valve, the clamping arm is configured to capture and clamp an anterior valve leaflet when the valve clamping and fixing device is in the first form, and a connection point between the anchoring ring and the valve stent is configured to be located in a posterior valve leaflet region when the valve clamping and fixing device is in the first form.

7. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the clamping mechanism comprises clamping arms that are a first clamping arm and a second clamping arm, the anchoring ring is connected to the first clamping arm and the second clamping arm, and the first clamping arm and the second clamping arm are configured to capture and clamp different native valve leaflets respectively.

8. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 7, wherein the valve clamping and fixing device further comprises a control filament, the control filament is detachably connected to the first clamping arm and the second clamping arm, and the control filament is configured to be pulled to enable the first clamping arm and the second clamping arm to open to capture the native valve leaflet.

9. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the clamping mechanism comprises a plurality of clamping arms, wherein connection points between the anchoring ring and the plurality of clamping arms are at different heights, so that the anchoring ring is in a wavy shape.

10. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein a distal end of the valve stent is provided with a plurality of auxiliary support stems, and the plurality of auxiliary support stems are configured to be located in an atrium after the valve stent is mounted in place, and at least part of the plurality of auxiliary support stems are configured to fit against an atrial wall after the valve stent is mounted in place.

11. The heart valve prosthesis capable of anchoring to a native valve leaflet according to claim 1, wherein the heart valve prosthesis further comprises a sealing device, wherein the sealing device comprises an adaptive segment and an abutment segment, wherein the adaptive segment comprises a first arc segment, a second arc segment, and a leak-proof membrane, wherein the

first arc segment is connected to the valve stent, the valve stent provides a fulcrum for the first arc segment, at least part of the first arc segment is configured to fit against an atrial wall after the valve stent is mounted in place, and the first arc segment is configured to rotate about the fulcrum toward a center of the valve stent to drive the second arc segment to rotate in a same direction as the first arc segment rotates when the atrial wall squeezes the first arc segment.