CLAIMS

1. A system, for use with an anchor driver, the system comprising an annuloplasty structure that comprises:

a wire;

a plurality of anchors, each of the anchors comprising

a tissue-engaging element defining a central longitudinal axis of the anchor, having a sharpened distal tip, and configured to be driven into tissue of a subject; and

a head, coupled to the tissue-engaging element, and comprising a driver interface configured to be reversibly engaged by the anchor driver in a manner that facilitates the anchor driver driving the tissue-engaging element into the tissue; and

a plurality of flexible connectors, each of the connectors formed from a flexible polymer that is shaped to define:

a circumferential portion that has a hole therethrough, and that connects the connector to a respective one of the anchors such that (i) the head of the respective anchor is disposed on a first side of the hole, (ii) the tissue-engaging element of the respective anchor is on a second, opposite, side of the hole, and (iii) the respective anchor is rotatable, around the central longitudinal axis, with respect to the connector; and

an eyelet through which the wire is threaded, thereby slidably coupling the connector to the wire.

2. The system according to claim 1, wherein, for each of the anchors, the tissue-engaging element is configured to be screwed into the tissue by the anchor driver rotating the driver interface.

3. The system according to any one of claims 1-2, wherein, for each of the connectors, the connector is connected to the respective anchor such that the eyelet is disposed laterally from the head.

4. The system according to any one of claims 1-3, wherein the circumferential portion circumscribes the head of the respective anchor.

5. The system according to any one of claims 1-4, wherein the circumferential portion connects the connector to the respective anchor such that the driver interface is exposed from the circumferential portion.

6. The system according to any one of claims 1-5, wherein the flexible polymer is a flexible fabric of the polymer.

7. The system according to claim 2, wherein the eyelet is defined by a hem stitched in the flexible fabric of the polymer.

8. The system according to any one of claims 1-7, wherein the wire is a first wire, and the annuloplasty structure comprises a second wire, each of the connectors slidably coupling the respective one of the anchors to the first wire and to the second wire.

9. The system according to claim 8, wherein the first wire and the second wire are generally parallel with each other.

10. The system according to claim 8, wherein, for each connector:

the eyelet is a first eyelet,

the first wire is threaded through the first eyelet, thereby slidably coupling the connector to the first wire,

the polymer is shaped to define a second eyelet through which the second wire is threaded, thereby slidably coupling the connector to the second wire, and

the flexible polymer is shaped such that the first eyelet and the second eyelet are disposed on either side of the hole, and the respective anchor is disposed between the first wire and the second wire.

11. The system according to any one of claims 1-10, further comprising the anchor driver.

12. The system according to claim 11, wherein:

the system comprises a delivery tool that comprises a flexible tube and the anchor driver,

the anchor driver comprises a flexible shaft, and a driver head at a distal end of the shaft, the driver head being configured to reversibly engage the driver interface of each of the anchors, and

each of the connectors is sufficiently flexible to facilitate the anchor driver sliding the respective anchor over and along the wire while the central longitudinal axis of the respective anchor is generally parallel to the wire.

13. The system according to any one of claims 1-12, wherein each of the anchors comprises a neck via which the tissue-engaging element is coupled to the head.

14. The system according to claim 13, wherein, for each of the connectors, the neck of the respective anchor extends through the hole.

15. The system according to claim 14, wherein, for each of the connectors, the head of the respective anchor is wider than the hole.

16. A system, for use with an anchor driver, the system comprising an annuloplasty structure that comprises:

a wire;

a plurality of anchors, each of the anchors comprising:

a tissue-engaging element defining a central longitudinal axis of the anchor, having a sharpened distal tip, and configured to be driven into tissue of a subject;

a neck; and

a head, coupled to the tissue-engaging element via the neck, and comprising a driver interface configured to be reversibly engaged by the anchor driver, and a head circumferential surface defined around the central longitudinal axis; and

a plurality of flexible fabric portions, each of the fabric portions:

slidably coupling, to the wire, a respective anchor of the plurality of anchors;

and comprising:

a distal opening through which the neck extends, wherein the anchor is rotatable, around the central longitudinal axis, with respect to the fabric portion; and

an eyelet through which the wire is threaded, thereby slidably coupling the connector to the wire.

17. The system according to claim 16, wherein the eyelet is defined by a patch coupled to the fabric portion at upper and lower portions of the patch.

18. The system according to any one of claims 16-17, wherein the wire is a first wire, and the annuloplasty structure comprises a second wire, each of the fabric portions slidably coupling the respective one of the anchors to the first wire and to the second wire.

19. The system according to claim 18, wherein the first wire and the second wire are generally parallel with each other.

20. The system according to claim 18, wherein, for each fabric portion:

the eyelet is a first eyelet,

the first wire is threaded through the first eyelet, thereby slidably coupling the fabric portion to the first wire, and

the fabric portion comprises a second eyelet through which the second wire is threaded, thereby slidably coupling the fabric portion to the second wire.