CLAIMS

1. A system for use with a subject, comprising:

a catheter device, comprising:

a tube that has a proximal opening, and

an extracorporeal controller that comprises a track that leads to a deployment position;

a first cartridge holding a first tissue anchor, the first cartridge shaped to be grasped by hand by a human operator and being coupled to the controller and, while remaining coupled to the controller, being moveable along the track by hand by the human operator from a first initial position to the deployment position such that the first cartridge holds the first tissue anchor opposite the proximal opening; and

a second cartridge holding a second tissue anchor, the second cartridge shaped to be grasped by hand by the human operator and being coupled to the controller and, while remaining coupled to the controller, being moveable along the track by hand by the human operator from a second initial position to the deployment position such that the second cartridge holds the second tissue anchor opposite the proximal opening.

2. The system according to claim 1, wherein the first tissue anchor comprises a first tissue-engaging element and a first head comprising a first eyelet, and the second tissue anchor comprises a second tissue-engaging element and a second head comprising a second eyelet.

3. The system according to claim 2, further comprising a tether threaded through the first eyelet and the second eyelet, the tether having a proximal portion that includes a proximal end of the tether and having a distal portion that includes a distal end of the tether, the distal end of the tether being advanceable distally through the tube into the subject while the proximal end of the tether remains outside of the subject.

4. The system according to claim 3, wherein an anchor driver is configured to advance the first anchor distally out of the first cartridge, through the proximal opening, and through the tube, while the first eyelet of the first anchor remains threaded on the tether, and wherein the anchor driver is configured to advance the second anchor distally out of the second cartridge, through the proximal opening, and through the tube, while the second eyelet of the second anchor remains threaded on the tether.

5. The system according to any one of claims 3-4, wherein the catheter device further comprises a tensioning device configured to apply tension to the tether.

6. The system according to claim 5, wherein the tensioning device comprises a spring and a spool, the spool coupled to the spring such that rotation of the spool in a first direction applies stress to the spring, and wherein the proximal portion of the tether is wound around the spool such that advancing of the distal portion of the tether distally through the tube rotates the spool in the first direction.

7. The system according to any one of claims 1-6, wherein each of the first cartridge and the second cartridge is configured to lock to the controller upon arriving at the deployment position.

8. The system according to any one of claims 1-7, further comprising an anchor driver that is couplable to the first anchor while the first anchor is held by the first cartridge opposite the proximal opening and is configured to advance the first anchor distally out of the first cartridge through the proximal opening and through the tube, and that is couplable to the second anchor while the second anchor is held by the second cartridge opposite the proximal opening and is configured to advance the second anchor distally out of the second cartridge through the proximal opening and through the tube.

9. The system according to any one of claims 1-8, wherein each of the first cartridge and the second cartridge is removable from the deployment position by being removed from the controller.

10. The system according to any one of claims 1-9, wherein the first cartridge comprises a first displaceable barrier that inhibits the first anchor from being advanced distally out of the first cartridge, and wherein the second cartridge comprises a second displaceable barrier that inhibits the second anchor from being advanced distally out of the second cartridge.

11. The system according to claim 10, wherein the first cartridge comprises a first displacement mechanism that, upon actuation of the first displacement mechanism, displaces the first displaceable barrier such that the first displaceable barrier ceases to obstruct the first anchor from being advanced distally out of the first cartridge, and wherein the second cartridge comprises a second displacement mechanism that, upon actuation of the second displacement mechanism, displaces the second displaceable barrier such that the second displaceable barrier ceases to obstruct the second anchor from being advanced distally out of the second cartridge.

12. The system according to claim 11, wherein the first displacement mechanism and the second displacement mechanism are each spring-loaded.

13. The system according to claim 11, wherein the first displacement mechanism is configured to be actuated by a force applied to the first anchor, and wherein the second displacement mechanism is configured to be actuated by a force applied to the second anchor.

14. The system according to claim 13, wherein the first displacement mechanism is configured to be actuated by an anchor driver pulling the first anchor proximally, and wherein the second displacement mechanism is configured to be actuated by the anchor driver pulling the second anchor proximally.

15. The system according to claim 14, wherein the first cartridge comprises a first piece that comprises the barrier, and a second piece that couples the first cartridge to the extracorporeal unit and holds the first anchor.

16. The system according to claim 15, wherein the second piece defines a detent that constrains the first displacement mechanism, and wherein the first displacement mechanism is configured to be actuated by the anchor driver pulling the first anchor proximally with sufficient force that the first anchor pulls the second piece proximally with respect to the first piece such that the detent ceases to constrain the first displacement mechanism.

17. The system according to claim 16, wherein the second piece slidably couples the first cartridge to the track.

18. The system according to claim 17, wherein the first cartridge is configured such that the anchor driver pulling the first anchor proximally with sufficient force that the first anchor pulls the second piece proximally with respect to the first piece reconfigures the first cartridge into a removable state that facilitates removal of the first cartridge from the deployment position.

19. The system according to claim 15, wherein the second piece is mounted inside the first piece, and the first piece is shaped to be grasped by hand by the human operator.

20. The system according to any one of claims 1-19, further comprising a third cartridge holding a third tissue anchor and being coupled to the controller and, while remaining coupled to the controller, being moveable along the track from a third initial position to the deployment position such that the third cartridge holds the third tissue anchor opposite the proximal opening.