CLAIMS

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

a catheter device, comprising:

a flexible tube that has:

a distal opening that is configured to be transluminally advanced toward the tissue, and

a proximal end that defines a proximal opening; and

an extracorporeal unit, coupled to the proximal end of the tube, and comprising:

a body, and

a series of cartridges, distributed along or parallel to a proximal-distal axis of the body, with a distalmost cartridge of the series of cartridges being closest to the proximal opening;

a tether; and

a series of anchors, including a leading anchor and other anchors, each anchor of the series of anchors:

housed by a corresponding cartridge of the series of cartridges, with the leading anchor housed by the distalmost cartridge, and

coupled to the tether such that the tether extends along the body, parallel with the proximal-distal axis.

2. The system according to claim 1, wherein the cartridges of the series of cartridges are imbricated.

3. The system according to claim 1, further comprising a tensioner, housed by the extracorporeal unit, and configured to:

engage an intermediate region of the tether, the intermediate region of the tether being at the extracorporeal unit, and

apply tension to the tether by pulling on the intermediate region of the tether.

4. The system according to claim 1, wherein each of the cartridges:

has a closed state in which the cartridge securely houses the corresponding anchor,

defines a respective cartridge vector that is oblique with respect to the proximal-distal axis, and

is, by at least part of the cartridge being slid along the cartridge vector, transitionable into an open state in which the corresponding anchor is removable from the cartridge.

5. The system according to claim 4, wherein the cartridge vectors of the series of cartridges collectively define a common cartridge plane on which the cartridge vectors lie, and the tether extends along the body, parallel with the common cartridge plane.

6. The system according to claim 1, wherein each anchor of the series:

comprises:

a head, coupled to the tether, and

a tissue-engaging element, extending away from the head to define an anchor axis of the anchor, and

is housed by a corresponding cartridge such that the anchor axis lies obliquely with respect to the proximal-distal axis.

7. The system according to claim 1, wherein the tether has (i) a distal end at the leading anchor, and (ii) a proximal end releasably secured within the extracorporeal unit, and

the extracorporeal unit comprises a de-slacker that comprises:

a winch that is spring-loaded in a manner that takes up slack in the tether, and a deactivation switch that is user-operable to deactivate the de-slacker in a manner that allows slack to be introduced to the tether and not taken up by the winch.

8. The system according to claim 1, further comprising multiple spacers threaded on the tether, alternatingly with the anchors of the series, and

multiple connectors, each connecting a corresponding one of the spacers to a corresponding anchor of the series.

9. The system according to claim 8, further comprising at least one free spacer, separate from the tether, and manually threadable onto the tether between anchors without access to an end of the tether.

10. The system according to claim 8, wherein each of the connectors provides a frangible connection between the corresponding spacer and the corresponding anchor.

11. The system according to claim 8, wherein each of the spacers is arranged on the tether such that, upon advancement of the corresponding anchor distally along the tether toward the proximal opening, the corresponding anchor tows the corresponding spacer via the corresponding connector, the corresponding spacer trailing the corresponding anchor distally along the tether.

12. The system according to claim 1, wherein:

each anchor of the series comprises:

an anchor head; and

a helical tissue-engaging element, extending away from the anchor head to define an anchor axis of the anchor, and configured to be screwed along the anchor axis into the tissue;

the flexible tube has a distal portion that includes the distal opening, the flexible tube defining:

along a tube axis of the flexible tube, a channel through which the anchor is slidable toward the distal opening, and

at the distal portion, a grip zone at which the flexible tube has a grip surface that inhibits sliding of the anchor through the grip zone by gripping a lateral surface of the helical tissue-engaging element; and

the system further comprises an anchor driver configured to:

slide the anchor distally through the channel to the grip zone, and

drive the anchor through the grip zone by screwing the helical tissue-engaging element over the grip surface.

13. The system according to claim 1, wherein, each of the anchors comprises:

an anchor head;

a tissue-engaging element:

extending distally away from the anchor head to define an anchor axis of the anchor, and

configured to be driven along the anchor axis into the tissue; and

a textile, shaped to define an eyelet, the anchor being coupled to the tether by the eyelet being coupled to the tether.

14. The system according to claim 13, wherein, for each of the anchors, the textile is further shaped to define a collar that couples the eyelet to the anchor head such that the eyelet is revolvable about the anchor axis by the collar rotating about the anchor axis.

15. The system according to claim 14, wherein the textile is a yarn, the collar and the eyelet being formed by knotting the yarn.

16. The system according to claim 1, further comprising an anchor driver:

comprising a flexible shaft, and a drive head at a distal end of the shaft, and

configured to, for each of the anchors sequentially, beginning with the leading anchor:

engage the drive head with the anchor,

remove the anchor from the corresponding cartridge, and

while the anchor remains coupled to the tether, advance the anchor into the proximal opening and through the flexible tube toward the tissue, and anchor the anchor to the tissue.

17. The system according to claim 16, further comprising an elongate adjustment tool and a lock, the adjustment tool configured to:

advance the lock distally along the tether into a heart of the subject and toward the tissue,

apply tension to the tether,

lock the tension in the tether by locking the lock to the tether,

cut the tether proximally from the lock, and

leave the lock in the heart locked to the tether.

18. The system according to claim 16, wherein the extracorporeal unit is shaped to define, proximally from the series of cartridges, a rest in which the shaft is restable while the anchor driver anchors the anchor to the tissue.