WHAT IS CLAIMED IS:

1. A locking suture delivery and deployment device comprising:

a body having a tip portion at a distal end, the tip portion being configured to be atraumatic to targeted tissue;

a holding component coupled to the body, the holding component having one or more features to secure a pre-formed knot of a locking suture at the distal end, the locking suture including a tether portion with two proximal ends;

a release component in communication with the holding component, the release component configured to release the pre-formed knot after it has been transitioned from a delivery configuration to a deployed configuration; and

a tensioning component coupled to the body, the tensioning component configured to apply proximal forces to individual proximal ends of the tether portion at different times with targeted tension.

2. The device of claim 1, wherein the tensioning component is configured to transition the pre-formed knot from the delivery configuration to the deployed configuration without increasing tension on the targeted tissue.

3. The device of claim 1 or claim 2, wherein the tensioning component includes a rack and pinion configuration.

4. The device of any of claims 1–3, wherein the release component includes a pusher member to push the pre-formed knot from the holding component.

5. The device of any of claims 1–4, wherein the tensioning component is configured to apply a first force to a first proximal end portion of the tether portion and to apply a second force to a second proximal end of the tether portion.

6. The device of claim 5, wherein the tensioning component is configured to apply the first force and the second force sequentially without human intervention between application of the first force and the second force.

7. The device of claim 5, wherein the first force and the second force are different from one another.

8. The device of any of claims 1–7, wherein the tensioning component is configured to automatically stop increasing tension at a targeted tension.

9. The device of any of claims 1–7, wherein the tensioning component includes a feedback mechanism to indicate when a targeted tension is achieved.