A61B 17/00 (2006.01)

Abstract:
Title:

Described are various embodiments of surgical procedure systems, devices, tools, and methods, useful for treating pelvic conditions in a male or female, the pelvic conditions including incontinence (various forms such as fecal incontinence, stress urinary incontinence, urge incontinence, mixed incontinence, etc.), vaginal prolapse (including various forms such as enterocele, cystocele, rectocele, apical or vault prolapse, uterine descent, etc.), and other conditions caused by muscle and ligament weakness, the devices and tools including devices and tools for anchoring an implant to tissue, devices and tools for transvaginally accessing a posterior region of pelvic anatomy, devices (including certain types of implants, anchors, and tools) for connecting (e.g., adjustably) a vaginal apex to a region of sacral anatomy to provide support to the vaginal apex, and related methods.
AMENDED CLAIMS
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Please amend claim 4 and add new claims 20-27 as follows:

4. A multi-functional tool according to claim 1 capable of:
   - illuminating a surgical site at the distal end,
   - transmitting images of the surgical site from the distal end to the proximal end for viewing,
   - delivering fluid at the distal end, and
   - placing an anchor at tissue at a surgical site at the distal end.

5. A method of transvaginally performing a sacral colpopexy, the method comprising:
   - providing a multi-functional tool according to any of claims 1 through 4,
   - inserting the distal end through a vagina introitus.

6. A method of transvaginally performing pelvic surgery to support a vaginal apex, the method comprising:
   - providing an adjustable implant comprising an anterior end, a posterior end, and an adjustment mechanism,
   - transvaginally placing the anterior end in contact with vaginal tissue in a region of a vaginal apex,
   - transvaginally placing the posterior end at a region of sacral anatomy,
   - using the adjustment mechanism to adjusting the length of the implant.

7. A method according to claim 6 wherein the posterior end comprises an anchor and the method comprises transvaginally securing the anchor to an anterior longitudinal ligament.

8. A method according to claim 7 wherein the anchor is secured to the anterior longitudinal ligament by inserting the anchor transvaginally and approaching the anterior longitudinal ligament at an approach angle of less than 60 degrees and pushing the anchor into the anterior longitudinal ligament.

9. A method according to claim 7 wherein the anchor is secured to the anterior longitudinal ligament by inserting the anchor transvaginally and approaching the anterior longitudinal ligament at an approach angle of less than 60 degrees and pulling the anchor into the anterior longitudinal ligament.
18. A method according to claim 16 or 17 comprising
providing an implant comprising an anchor,
placing the anchor transvaginally through the opening in the expansion
member, and
securing the anchor to an anterior longitudinal ligament by approaching
the anterior longitudinal ligament at an approach angle of less than 60 degrees and
pushing the anchor into the anterior longitudinal ligament.
19. A method according to claim 16 or 17 comprising
providing an implant comprising an anchor,
placing the anchor transvaginally through the opening in the expansion
member, and
securing the anchor to an anterior longitudinal ligament by approaching
the anterior longitudinal ligament at an approach angle of less than 60 degrees and
pulling the anchor into the anterior longitudinal ligament.
20. A multi-functional tool according to claim 3 or 4 capable of placing an anchor at
tissue at a surgical site at the distal end.
21. A multifunctional tool according to claim 3, or 20, capable of transmitting
images of a surgical site from the distal end to the proximal end for viewing.
22. A multi-functional tool according to claim 3, 20, or 21, capable of delivering
fluid at the distal end.
23. A multi-functional tool according to claim 3, 4, 20, 21, or 22, capable of
distending tissue by expanding an expandable structure.
24. A multi-functional tool according to claim 3, 4, 20, 21, 22, or 23, capable of
removing fluid from a surgical site at the distal end.
25. A multi-functional tool according to claim 3, 4, 20, 21, 22, 23, or 24, capable of
steering the shaft at the distal end, and
26. A multi-functional tool according to claim 3, 20, 21, 22, 23, 24, or 25, capable of
illuminating a surgical site at the distal end.
27. A multi-functional tool according to claim 3, 20, 21, 22, 23, 24, or 25, wherein
the distal end comprises a soft tissue anchor attached to implant material.