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(54) **HYSTEROPEXY MESH APPARATUSES**

HYSTEROPEXIE MESH VORRICHTUNGEN

APPAREILS DE MAILLAGE D'HYSTEROPEXIE

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(73) Proprietor: **Coloplast A/S**
3050 Humlebaek (DK)

(72) Inventor: **SHARIATI, Amir**
Parkland, FL 33076 (US)

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Description

FIELD OF THE INVENTION

[0001] The invention relates generally to apparatuses for performing hysteropexy.

BACKGROUND OF THE INVENTION

[0002] Uterine prolapse occurs when pelvic floor muscles and ligaments stretch and weaken, providing inadequate support for the uterus. The uterus then descends into or protrudes from the vagina. Uterine prolapse can happen to women of any age, but it often affects postmenopausal women who've had one or more vaginal deliveries. Damage to supportive tissues during pregnancy and childbirth, effects of gravity, loss of estrogen, and repeated straining over the years all can weaken the pelvic floor and lead to uterine prolapse.

At the present time, sacral colpopexy is the gold standard procedure for post-hysterectomy patients who have vaginal vault prolapse. Patients who still have their uterus and are undergoing sacral colpopexy are having a total hysterectomy or a supracervical hysterectomy at the same time. This can lead to mesh erosion. The only reason that most hysterectomies are performed is because the appropriate mesh that can provide anterior, posterior, and apical uterine support is not available. Hysteropexy is the surgical fixation of a displaced uterus. The hysteropexies that are performed at the present time are either supporting the uterus by placing the mesh anteriorly or posteriorly.

WO 2014/008130 discloses a surgical implant for treating pelvic organ prolapse conditions including a vaginal portion having a length, width, first and second ends with a central region positioned therebetween, and a sacral portion having a length, width, first and second end. The first end of the sacral portion is coupled to the central region of the vaginal portion so that the width of the first end extends substantially perpendicularly to the length of the vaginal portion.

[0003] EP2754412 discloses a fabric of implantable material including a first portion for fastening of the fabric to one or more points of a pelvic cavity, a second portion joined to the first portion, the second portion including two sections to respectively to fix anterior and posterior parts of a pelvic organ. The first portion and the two sections of the second portion are substantially rectangular in shape. The two sections of the second portion are connected through a third section of fabric acting as a connecting bridge.

[0004] WO 2011/037837 discloses an implantable medical device for the treatment of vaginal vault prolapse having one attachment part for attaching to anterior and posterior parts of the vaginal apex, and another attachment part for attaching to an anterior part of the sacrum.

[0005] US 2010/0305394 discloses a sacrocolpopexy mesh that includes lateral support to improve vaginal contact during colpopexy and to prevent slipping.

BRIEF SUMMARY OF THE INVENTION

[0006] The present invention provides embodiments of apparatuses configured for use in hysteropexy and exemplary methods of using the same.

[0007] In one embodiment, a hysteropexy apparatus is presented comprising a hysteropexy mesh comprising: an anterior vaginal portion, substantially rectangular in shape, having a major dimension of about 10 cm and a minor dimension of about 4.0 cm; a right broad ligament portion, substantially L-shaped, extending from one long edge of the anterior vaginal portion and having a thickness dimension about 1.2 cm and a major dimension of about 3.5 cm; a left broad ligament portion, substantially L-shaped, extending from the other long edge of the anterior vaginal portion and having a thickness dimension about 1.2 cm and a major dimension of about 3.5 cm; a sacral portion, substantially rectangular in shape, having a major dimension of about 8.0 cm and a minor dimension of about 4.0 cm; and a posterior vaginal portion, substantially rectangular in shape, having a major dimension of about 15 cm and a minor dimension of about 4.0 cm; where the left broad ligament portion extends between and connects the anterior vaginal portion and the posterior vaginal portion.

In another embodiment the hysteropexy mesh comprises one of polypropylene, polyester, polyethylene, silicone, a urethane, a polyurethane, copolymers, or block copolymers thereof.

[0008] An exemplary method of treating hysteropexy is described comprising: create a peritoneal incision just above the rectum; separate rectum from the posterior aspect of the vagina by dissection until the perineal body is reached and the levator muscles are exposed; penetrate peritoneum overlying the sacral promontory and inferiorly dissected to meet posterior dissection from cul de sac; identify and clear off anterior longitudinal ligament and presacral vessels on the sacral promontory; manipulate uterus to create vesicouterine fascia incision and bladder flap; dissect vesicovaginal space to separate the bladder from the anterior aspect of the vagina until the level of the trigone is reached; create broad ligament incisions on each side near the cervix; insert hysteropexy mesh and attach by suture the posterior vaginal portion of the mesh to the posterior aspect of the vagina; pass folded anterior vaginal portion and right and left broad ligament arms through incision in the broad ligament on the left; unfold anterior vaginal portion and attach by suture to the anterior aspect of the vagina; pass right broad ligament portion through incision in the broad ligament on the right; manipulator uterus and attach right broad ligament portion of mesh to posterior vaginal portion of mesh and the posterior aspect of the cervix; attach sacral portion of mesh to the anterior longitudinal ligament at the level of the S1 vertebrae by suture in a tension free fashion; close peritoneal incision made on the sacrum

by suture and cover with the bladder peritoneum using another suture; and close any remaining incisions to complete procedure.

[0009] In another example the hysteropexy procedure is performed robotically, laparoscopically, or in open surgery through a laparotomy incision.

In another aspect a medical device kit is provided comprising the hysteropexy mesh of the current disclosure and instructions for implantation.

Although the present invention has been described with reference to preferred embodiments, persons skilled in the art will recognize that changes may be made in form and detail without departing from the scope of the invention, as defined by the appended claims. While multiple embodiments are disclosed, still other embodiments of the present invention will become apparent to those skilled in the art from the following detailed description. As will be apparent, the invention is capable of modifications in various obvious aspects, all without departing from the scope of the present invention. Accordingly, the detailed descriptions are to be regarded as illustrative in nature and not restrictive.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010]

FIG. 1 is a plan view of an embodiment of a hysteropexy mesh comprising an anterior vaginal portion, a right broad ligament portion, a left broad ligament portion, a sacral portion, and a posterior vaginal portion.

FIG. 2 is a plan view of an embodiment of a hysteropexy mesh with anterior vaginal portion folded along its longitudinal midline.

FIG. 3 is an anterior view of an embodiment of a hysteropexy mesh implanted in the pelvic region showing the uterus, the pubic bone, and the anterior vagina.

FIG. 4 is a posterior view of an embodiment of a hysteropexy mesh implanted in the pelvic region showing the uterus, the broad ligament, and a portion of the sacrum.

FIG. 5 is a lateral view of an embodiment of a hysteropexy mesh implanted in the pelvic region showing the pubic bone, the bladder, the uterus, the rectum, and the sacrum.

DETAILED DESCRIPTION

[0011] Embodiments and exemplary methods for using a hysteropexy mesh configured to be implanted in the pelvic region of a patient are discussed below.

[0012] A plan view of an embodiment of a hysteropexy mesh 10 is shown in FIG. 1. Mesh 10 comprises an anterior vaginal portion 12, a right broad ligament portion 14, a left broad ligament portion 16, a sacral portion 18, and a posterior vaginal portion 20.

[0013] In the illustrated embodiment, mesh 10 is an integral mesh, and each of the above-identified portions 12-20 are regions of the whole. In such embodiments, mesh 10 may be cut, stamped, or otherwise machined from a single sheet of mesh.

[0014] In other embodiments, the portions may be separate or separable. For example, in certain embodiments, anterior vaginal portion 12, right broad ligament portion 14, and left broad ligament portion 16 may comprise one integral mesh, sacral portion 18 may comprise a second integral mesh, and posterior vaginal portion 20 may comprise a third integral mesh, and these may be coupled to each other, such as a with a suture or an ultrasonic weld.

[0015] In the illustrated embodiment, anterior vaginal portion 12 is substantially rectangular in shape with a major dimension 121 of about 10 cm and a minor dimension 122 of about 4.0 cm.

[0016] Right broad ligament portion 14 extends from the long edge of anterior vaginal portion 12, such that an edge of right broad ligament portion 14 is in common (i.e., substantially aligned) with a short edge of anterior vaginal portion 12.

[0017] Left broad ligament portion 16 extends from the other long edge of anterior vaginal portion 12, such that an edge of left broad ligament portion 16 is in common (i.e., substantially aligned) with the same short edge of anterior vaginal portion 12 and the edge of right broad ligament portion 14.

[0018] Right and left broad ligament portions 14 and 16 are substantially L-shaped, and may be rounded as shown in FIG. 1. Each of the broad ligament portions has a thickness dimension 142 of about 1.2 cm and a major dimension 141 of about 3.5 cm.

[0019] Left broad ligament portion 16 is between anterior vaginal portion 12 and posterior vaginal portion 20. Posterior vaginal portion 20 is substantially rectangular in shape and has a major dimension 201 of about 15 cm and a minor dimension 202 of about 4.0 cm. The edge of left broad ligament portion 16 that is in common with the edge of anterior vaginal portion 12 and the edge of right broad ligament portion 14 is also in common with a short edge of posterior vaginal portion 20.

[0020] Sacral portion 18 is substantially rectangular in shape and has a major dimension 181 of about 8 cm and a minor dimension 202 of about 4.0 cm.

[0021] As shown in FIG. 2, mesh 10 is configured to be folded substantially along the longitudinal midline of anterior vaginal portion 12 and is further configured to be folded between sacral portion 18 and posterior vaginal portion 20. In certain embodiments, mesh 10 is packaged as depicted in FIG. 2, such that mesh 10 is folded substantially along the longitudinal midline of anterior vaginal portion 12 and between sacral portion 18 and posterior vaginal portion 20. In such embodiments, mesh 10 may be removed from the packaging, passed through the left side broad ligament incision, then unfolded to be attached to the anterior vaginal wall.

[0022] FIGS. 3-5 are anterior, posterior, and lateral il-

lustrations, respectively, of mesh 10 implanted into the pelvic region of a patient. FIG. 3 is an anterior view of mesh 10 implanted in the pelvic region showing the uterus 300, the pubic bone 303, and the anterior vagina 307. FIG. 4 is a posterior view of mesh 10 implanted in the pelvic region showing uterus 300, the broad ligament 304, and a portion of the sacrum 305. FIG. 5 is a lateral view of mesh 10 implanted in the pelvic region showing pubic bone 303, bladder 306, uterus 300, rectum 308, and sacrum 305. These figures may be reference to better understand the steps of embodiments of the method discussed below.

In one embodiment, the mesh 10 is a knitted monofilament polypropylene mesh having a mass per area between approximately 15-35 g/m^2 with a pore size between approximately 500-1500 μm and a thickness of approximately 260 μm. This mesh is thin and light weight (i.e., the basis weight is less than approximately 35 g/m^2) to provide a thin and comfortable mesh that is less likely to erode tissue that contacts the mesh and less likely to be sensed through the tissue layers by the patient. Other suitable materials for the support include fabrics formed from polyester, polyethylene, silicone, urethanes, polyurethanes, copolymers, or block copolymers of these or suitably similar polymeric materials. Suitable such knitted monofilament polypropylene mesh is available from Coloplast Corp., Minneapolis, MN. Other suitable woven polypropylene mesh material is available from, for example, Herniamesh®, Chivasso, Italy. Examples of the disclosed method may be performed robotically, laparoscopically, or in open surgery through a laparotomy incision.

In examples where the method is performed robotically, a uterine manipulator may be placed vaginally to allow for manipulation of uterus 300 for the anterior and posterior dissection of the vaginal walls and attachment of the mesh. Then a robotic tenaculum may be used to grab the fundus of the uterus to manipulate the uterus for the anterior and posterior dissection of the vaginal walls and attachment of the mesh. A tenaculum can then be used through an accessory port to be placed on the fundus of the uterus to manipulate the uterus for the anterior and posterior dissection of the vaginal walls and attachment of the mesh.

[0023] In examples where the procedure is being performed laparoscopically, the tenaculum may be used to be placed on the fundus of uterus 300 to manipulate uterus 300 for the anterior and posterior dissection of the vaginal walls and attachment of the mesh or a uterine manipulator may be placed vaginally to allow for manipulation of uterus 300 for the anterior and posterior dissection of the vaginal walls and attachment of the mesh.

[0024] In examples where the procedure is being performed open through a laparotomy incision a uterine manipulator may be placed vaginally to allow for manipulation of uterus 300 for the anterior and posterior dissection of the vaginal walls and attachment of the mesh.

[0025] In the disclosed examples, the other steps of the method may be performed as follows.

[0026] Uterus 300 is elevated so the posterior vagina is visualized. An incision is made in the peritoneum just above the rectum 308. Dissection is then performed bluntly and sharply in the rectovaginal space to separate rectum 308 from the posterior aspect of the vagina until the perineal body is reached and the levator muscles are exposed.

[0027] After that, the peritoneum overlying the sacral promontory is tented up and entered sharply with scissors. The peritoneal dissection is then carried inferiorly to meet the dissection posteriorly in the cul de sac below. The anterior longitudinal ligament as well as the presacral vessels on the sacral promontory are identified and cleared off.

[0028] Uterus 300 is then pulled dorsally and apically so that the anterior aspect of uterus 300 and the vagina are visualized. An incision is made in the vesicouterine fascia and the bladder flap is created sharply. The dissection is performed bluntly and sharply in the vesicovaginal space to separate the bladder from the anterior aspect of the vagina. This is done until the level of the trigone is reached.

[0029] Two one-centimeter incisions 301, 302 are made with the use of scissors and/or cautery in the broad ligament on each side near the cervix.

[0030] Then, posterior vaginal portion 20 of mesh 10 is attached to the posterior aspect of the vagina, such as with interrupted sutures.

[0031] The folded anterior vaginal portion 12 and the right and left broad ligament arms 14, 16 are then passed through incision 301 in the broad ligament on the left.

[0032] Anterior vaginal portion 12 is then unfolded and attached to the anterior aspect of the vagina using interrupted sutures.

[0033] Right broad ligament portion 14 is then passed through incision 302 in the broad ligament on the right. Uterus 300 is then lifted again, such as with a tenaculum or a manipulator and right broad ligament portion 14 of mesh 10 is attached to posterior vaginal portion 20 of mesh 10 and the posterior aspect of the cervix.

[0034] Sacral portion 18 of mesh 10 is than attached to the anterior longitudinal ligament at the level of the S1 vertebrae, such as with two interrupted sutures in tension free fashion.

[0035] To minimize exposure of the mesh to intraperitoneal organs, posterior vaginal portion 20 of mesh 10 and the peritoneal incision made on the sacrum are than closed using absorbable suture. Anterior vaginal portion 12 of mesh 10 is then covered with the bladder peritoneum using another absorbable suture. Any remaining incisions are closed and the surgery is complete.

[0036] In the specification and in the claims, the terms "including" and "comprising" are open-ended terms and should be interpreted to mean "including, but not limited to. ... " These terms encompass the more restrictive terms "consisting essentially of' and "consisting of."

[0037] It must be noted that as used herein and in the

appended claims, the singular forms "a", "an", and "the" include plural reference unless the context clearly dictates otherwise. As well, the terms "a" (or "an"), "one or more" and "at least one" can be used interchangeably herein. It is also to be noted that the terms "comprising", "including", "characterized by" and "having" can be used interchangeably. Unless defined otherwise, all technical and scientific terms used herein have the same meanings as commonly understood by one of ordinary skill in the art to which this invention belongs. All references cited in this specification are to be taken as indicative of the level of skill in the art. Nothing herein is to be construed as an admission that the invention is not entitled to antedate such disclosure by virtue of prior invention.

[0038] Although the present invention has been described with reference to preferred embodiments, persons skilled in the art will recognize that changes may be made in form and detail without departing from the scope of the invention. Those skilled in the art will recognize, or be able to ascertain, using no more than routine experimentation, many equivalents to specific embodiments of the invention described specifically herein.

Claims

1. A hysteropexy mesh (10) comprising:

an anterior vaginal portion (12) that is substantially rectangular in shape,
a right broad ligament portion (14) that is substantially L-shaped and extending from one long edge of the anterior vaginal portion (12),
a left broad ligament portion (16) that is substantially L-shaped and extending from another long edge of the anterior vaginal portion (12),
a sacral portion (18) that is substantially rectangular in shape; and
a posterior vaginal portion (20) that is substantially rectangular in shape;
characterized in that
the left broad ligament portion (16) extends between and connects the anterior vaginal portion (12) and the posterior vaginal portion (20),
wherein the anterior vaginal portion (12) is configured to be folded on a longitudinal midline of the anterior vaginal portion (12) and the sacral portion (18) is configured to be folded onto the posterior vaginal portion (20).

2. The hysteropexy mesh of claim 1, wherein the mesh (10) comprises one of polypropylene, polyester, polyethylene, silicone, a urethane, a polyurethane, or copolymers or block copolymers thereof.

3. The hysteropexy mesh of claim 1, wherein the hysteropexy mesh (10) is separable where the anterior vaginal portion (12) and the right broad ligament portion (14) and the left broad ligament portion (16) comprise one integral mesh, the sacral portion (18) comprises a second integral mesh, and the posterior vaginal portion (20) comprises a third integral mesh.

4. The hysteropexy mesh of claim 3, wherein the first, second and third integral mesh are coupled to each other with suture or with an ultrasonic weld.

5. The hysteropexy mesh of claim 1, wherein the hysteropexy mesh (10) is an integral mesh with the anterior vaginal portion (12), the right broad ligament portion (14), the left broad ligament portion (16), the sacral portion (18) and the posterior vaginal portion (20) formed as regions of a whole of the mesh.

6. The hysteropexy mesh of claim 5, wherein the hysteropexy mesh (10) is cut, stamped or otherwise machined from a single sheet of mesh.

7. The hysteropexy mesh of claim 2, wherein the hysteropexy mesh (10) is a knitted monofilament polypropylene mesh having a mass per area between approximately 15-35 g/m^2 with a pore size between approximately 500-1500 μm and a thickness of approximately 260 μm.

8. The hysteropexy mesh of any one of the preceding claims, wherein
the substantially rectangular anterior vaginal portion (12) has a major dimension (121) of about 10 cm and a minor dimension (122) of about 4.0 cm;
the substantially L-shaped right broad ligament portion (14) has a thickness dimension (142) about 1.2 cm and a major dimension (141) of about 3.5 cm;
the substantially L-shaped left broad ligament portion (16) has a thickness dimension (142) about 1.2 cm and a major dimension (141) of about 3.5 cm;
the substantially rectangular sacral portion (18) has a major dimension (181) of about 8.0 cm and a minor dimension (202) of about 4.0 cm; and
the substantially rectangular posterior vaginal portion (20) has a major dimension (201) of about 15 cm and a minor dimension (202) of about 4.0 cm.

9. A medical device kit, comprising:

a packaging;
instructions for implantation of the hysteropexy mesh (10) located inside of the packaging;
the hysteropexy mesh (10) of any one of claims 1-8,
wherein the anterior vaginal portion (12) is folded on a longitudinal midline of the anterior vaginal portion (12) and the sacral portion (18) is folded onto the posterior vaginal portion (20).

Patentansprüche

1. Hysteropexie-Mesh (10), umfassend:

   ein vorderes Vaginalteil (12) von im Wesentlichen rechteckiger Form,
   ein rechtes breites Bandteil (14), das im Wesentlichen L-förmig ist und sich von einem langen Rand des vorderen Vaginalteils (12) erstreckt,
   ein linkes breites Bandteil (16), das im Wesentlichen L-förmig ist und sich von dem anderen langen Rand des vorderen Vaginalteils (12) erstreckt,
   ein Kreuzbeinteil (18) von im Wesentlichen rechteckiger Form, und
   ein hinteres Vaginalteil (20) von im Wesentlichen rechteckiger Form;
   dadurch gekennzeichnet, dass
   das linke breite Bandteil (16) sich zwischen dem vorderen Vaginalteil (12) und dem hinteren Vaginalteil (20) erstreckt und diese verbindet,
   wobei das vordere Vaginalteil (12) ausgestaltet ist, um entlang einer längsgerichteten Mittellinie des vorderen Vaginalteils (12) gefaltet zu werden, und das Kreuzbeinteil (18) ausgestaltet ist, um auf das hintere Vaginalteil (20) gefaltet zu werden.

2. Hysteropexie-Mesh nach Anspruch 1, wobei das Mesh (10) eines von Polypropylen, Polyester, Polyethylen, Silikon, einem Urethan, einem Polyurethan, oder Copolymeren oder Blockcopolymeren davon umfasst.

3. Hysteropexie-Mesh nach Anspruch 1, wobei das Hysteropexie-Mesh (10) trennbar ist, wobei das vordere Vaginalteil (12) und das rechte breite Bandteil (14) und das linke breite Bandteil (16) ein integrales Mesh umfassen, das Kreuzbeinteil (18) ein zweites integrales Mesh umfasst und das hintere Vaginalteil (20) ein drittes integrales Mesh umfasst.

4. Hysteropexie-Mesh nach Anspruch 3, wobei das erste, zweite und dritte integrale Mesh mittels Naht oder einer Ultraschallschweißung aneinander gekoppelt sind.

5. Hysteropexie-Mesh nach Anspruch 1, wobei das Hysteropexie-Mesh (10) ein integrales Mesh mit dem vorderen Vaginalteil (12), dem rechten breiten Bandteil (14), dem linken breiten Bandteil (16), dem Kreuzbeinteil (18) und dem hinteren Vaginalteil (20) ist, die als Regionen des Gesamt-Meshes gebildet sind.

6. Hysteropexie-Mesh nach Anspruch 5, wobei das Hysteropexie-Mesh (10) aus einer einzelnen Mesh-Lage geschnitten, geprägt oder anderweitig bearbeitet worden ist.

7. Hysteropexie-Mesh nach Anspruch 2, wobei das Hysteropexie-Mesh (10) ein gestricktes Monofilament-Mesh aus Polypropylen mit einem Flächengewicht zwischen annähernd 15 und 35 g/m^2 mit einer Porengröße zwischen annähernd 500 und 1500 μm und einer Dicke von annähernd 260 μm ist.

8. Hysteropexie-Mesh nach einem der vorhergehenden Ansprüche, wobei
   das im Wesentlichen rechteckige vordere Vaginalteil (12) eine größere Abmessung (121) von etwa 10 cm und eine kleinere Abmessung (122) von etwa 4,0 cm hat;
   das im Wesentlichen L-förmige rechte breite Bandteil (14) eine Dickenabmessung (142) von etwa 1,2 cm und eine größere Abmessung (141) von etwa 3,5 cm hat;
   das im Wesentlichen L-förmige linke breite Bandteil (16) eine Dickenabmessung (142) von etwa 1,2 cm und eine größere Abmessung (141) von etwa 3,5 cm hat;
   das im Wesentlichen rechteckige Kreuzbeinteil (18) eine größere Abmessung (181) von etwa 8,0 cm und eine kleinere Abmessung (202) von etwa 4,0 cm hat; und
   das im Wesentlichen rechteckige hintere Vaginalteil (20) eine größere Abmessung (201) von etwa 15 cm und eine kleinere Abmessung (202) von etwa 4,0 cm hat.

9. Medizinprodukt-Kit, umfassend:

   eine Verpackung;
   Anweisungen zur Implantierung des Hysteropexie-Meshes (10), das sich in der Verpackung befindet;
   das Hysteropexie-Mesh (10) nach einem der Ansprüche 1 bis 8,
   wobei das vordere Vaginalteil (12) entlang einer längsgerichteten Mittellinie des vorderen Vaginalteils (12) gefaltet ist und das Kreuzbeinteil (18) auf das hintere Vaginalteil (20) gefaltet ist.

Revendications

1. Bandelette d'hystéropexie (10) comprenant :

   une partie vaginale antérieure (12) qui est de forme essentiellement rectangulaire,
   une partie de ligament large droit (14) présentant essentiellement une forme de L et s'étendant depuis un bord long de la partie vaginale antérieure (12),
   une partie de ligament large gauche (16) pré-

sentant essentiellement une forme de L et s'étendant depuis un autre bord long de la partie vaginale antérieure (12),
une partie sacrée (18) qui est de forme essentiellement rectangulaire ; et
une partie vaginale postérieure (20) qui est de forme essentiellement rectangulaire ;
caractérisée en ce que
la partie de ligament large gauche (16) s'étend entre la partie vaginale antérieure (12) et la partie vaginale postérieure (20) et relie celles-ci,
la partie vaginale antérieure (12) étant conçue pour être pliée sur une ligne médiane longitudinale de la partie vaginale antérieure (12) et la partie sacrée (18) étant conçue pour être pliée sur la partie vaginale postérieure (20).

2. Bandelette d'hystéropexie selon la revendication 1, la bandelette (10) comprenant un parmi le polypropylène, le polyester, le polyéthylène, le silicone, un uréthane, un polyuréthane, ou des copolymères, ou des copolymères séquencés associés.

3. Bandelette d'hystéropexie selon la revendication 1, la bandelette d'hystéropexie (10) pouvant être séparée à l'endroit où la partie vaginale antérieure (12) et la partie de ligament large droit (14) et la partie de ligament large gauche (16) comprennent une bandelette intégrée, la partie sacrée (18) comprend une deuxième bandelette intégrée, et la partie vaginale postérieure (20) comprend une troisième bandelette intégrée.

4. Bandelette d'hystéropexie selon la revendication 3, dans lequel les première, deuxième et troisième bandelettes intégrées sont accouplées les unes aux autres avec une suture ou avec une soudure à ultrasons.

5. Bandelette d'hystéropexie selon la revendication 1, la bandelette d'hystéropexie (10) étant une bandelette intégrée à la partie vaginale antérieure (12), la partie de ligament large droit (14), la partie de ligament large gauche (16), la partie sacrée (18) et la partie vaginale postérieure (20) formées en tant que régions de la bandelette dans son ensemble.

6. Bandelette d'hystéropexie selon la revendication 5, la bandelette d'hystéropexie (10) étant coupée, estampée ou autrement usinée à partir d'une seule feuille de bandelette.

7. Bandelette d'hystéropexie selon la revendication 2, la bandelette d'hystéropexie (10) étant une bandelette de polypropylène en monofilament tricoté ayant une masse surfacique entre environ 15 et 35 g/m^2 avec une taille de pores entre environ 500 et 1500 μm et une dimension en épaisseur d'environ 260 μm.

8. Bandelette d'hystéropexie selon l'une quelconque des revendications précédentes, dans laquelle la partie vaginale antérieure (12) essentiellement rectangulaire a une grande dimension (121) d'environ 10 cm et une petite dimension (122) d'environ 4,0 cm ;
la partie de ligament large droit (14) présentant essentiellement la forme d'un L a une dimension en épaisseur (142) d'environ 1,2 cm et une grande dimension (141) d'environ 3,5 cm ;
la partie de ligament large gauche (16) présentant essentiellement la forme d'un L a une dimension en épaisseur (142) d'environ 1,2 cm et une grande dimension (141) d'environ 3,5 cm ;
la partie sacrée (18) essentiellement rectangulaire a une grande dimension (181) d'environ 8,0 cm et une petite dimension (202) d'environ 4,0 cm ; et
la partie vaginale postérieure (20) essentiellement rectangulaire a une grande dimension (201) d'environ 15 cm et une petite dimension (202) d'environ 4,0 cm.

9. Kit de dispositif médical, comprenant :

un emballage ;
des instructions pour l'implantation de la bandelette d'hystéropexie (10) situées dans l'emballage ;
la bandelette d'hystéropexie (10) selon l'une quelconque des revendications 1 à 8,
la partie vaginale antérieure (12) étant pliée sur une ligne médiane longitudinale de la partie vaginale antérieure (12) et la partie sacrée (18) étant pliée sur la partie vaginale postérieure (20).

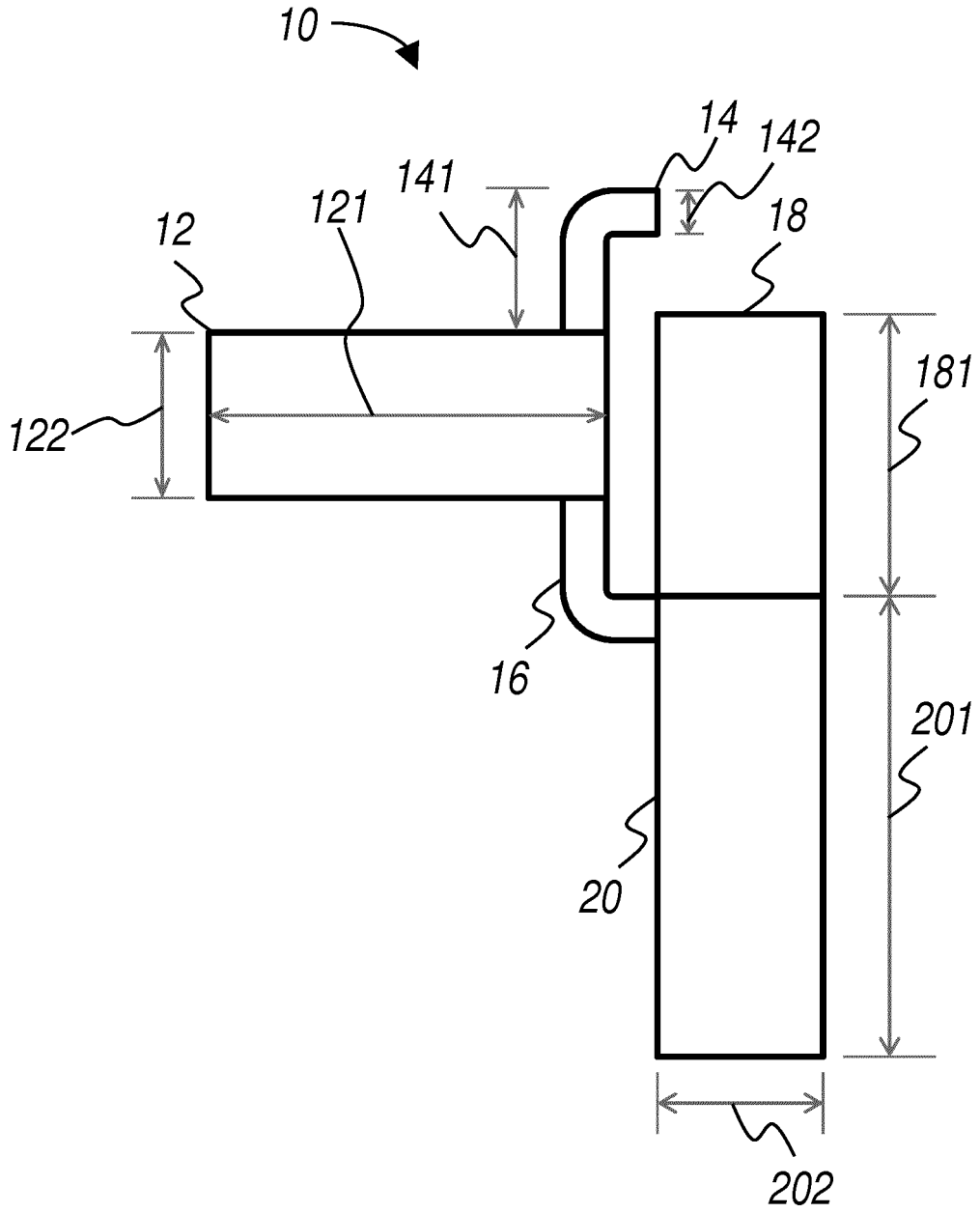

FIG. 1

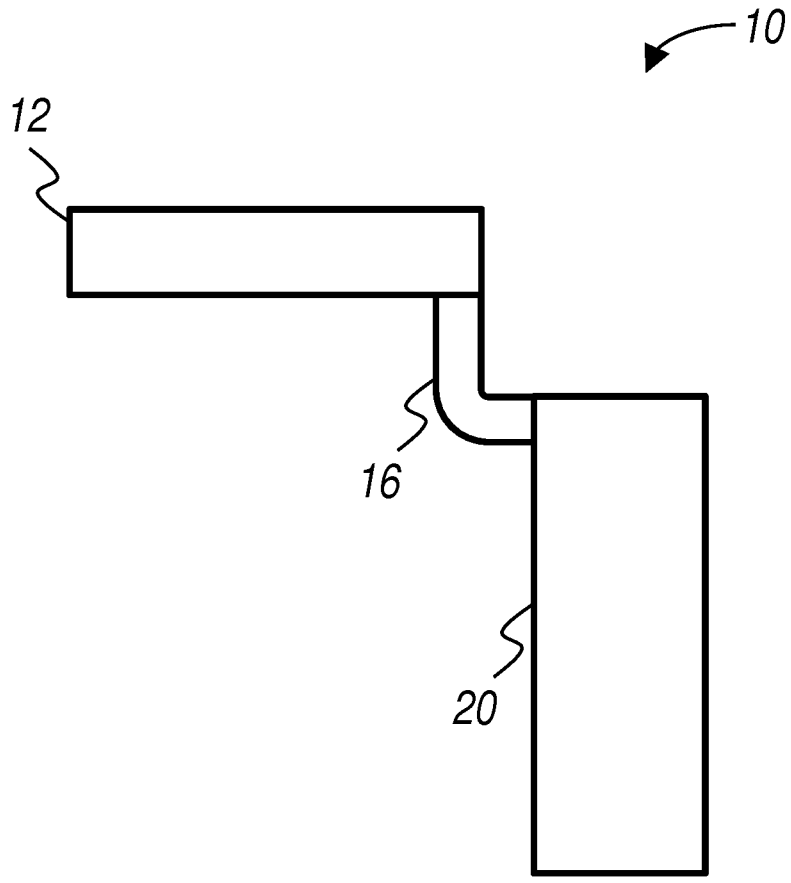

FIG. 2

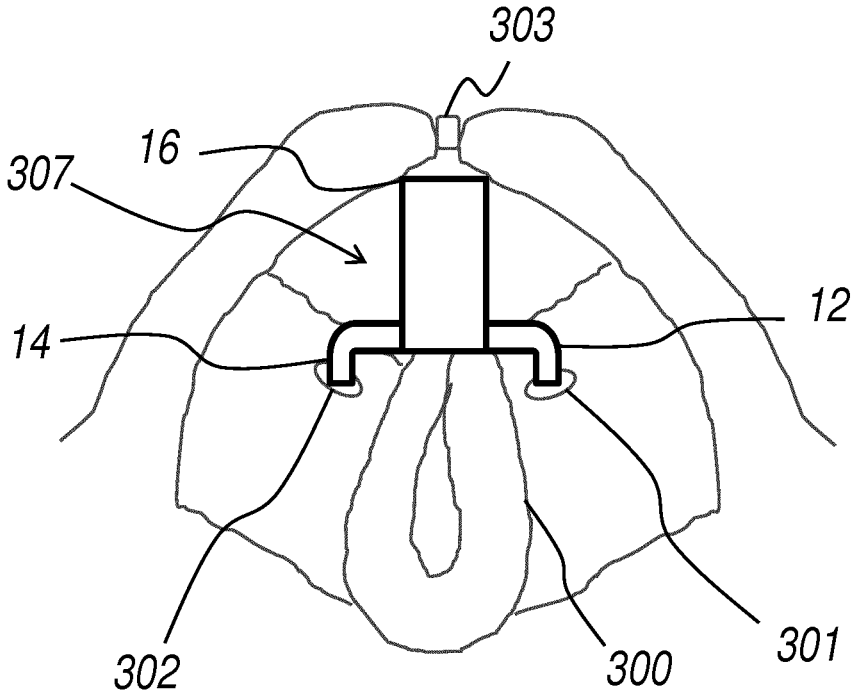

FIG. 3

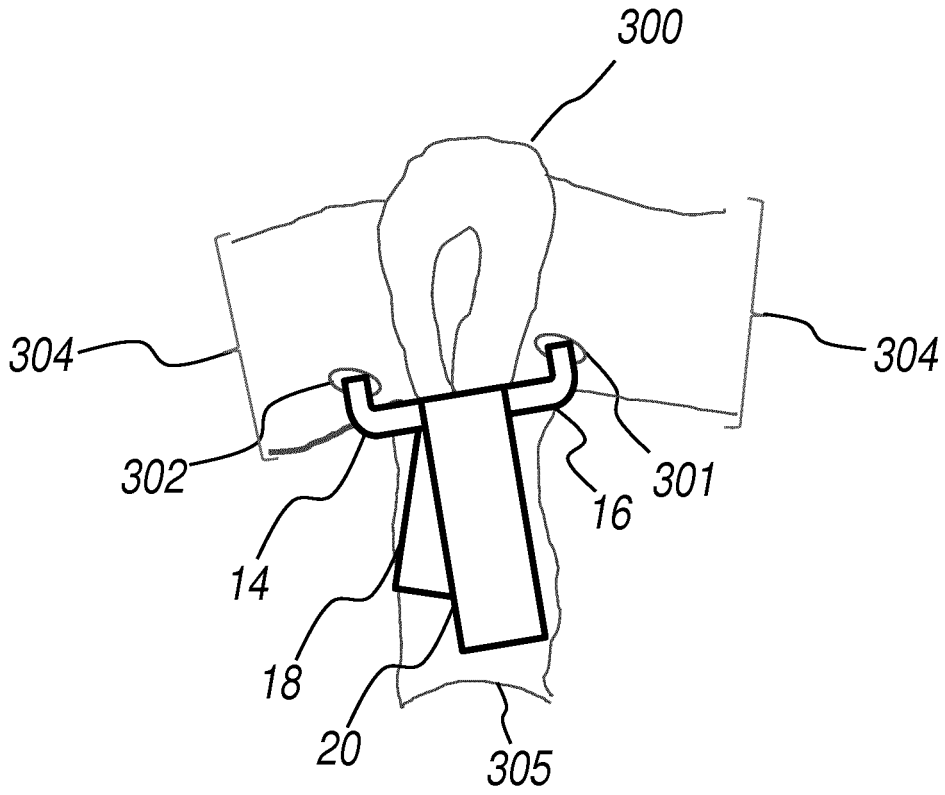

FIG. 4

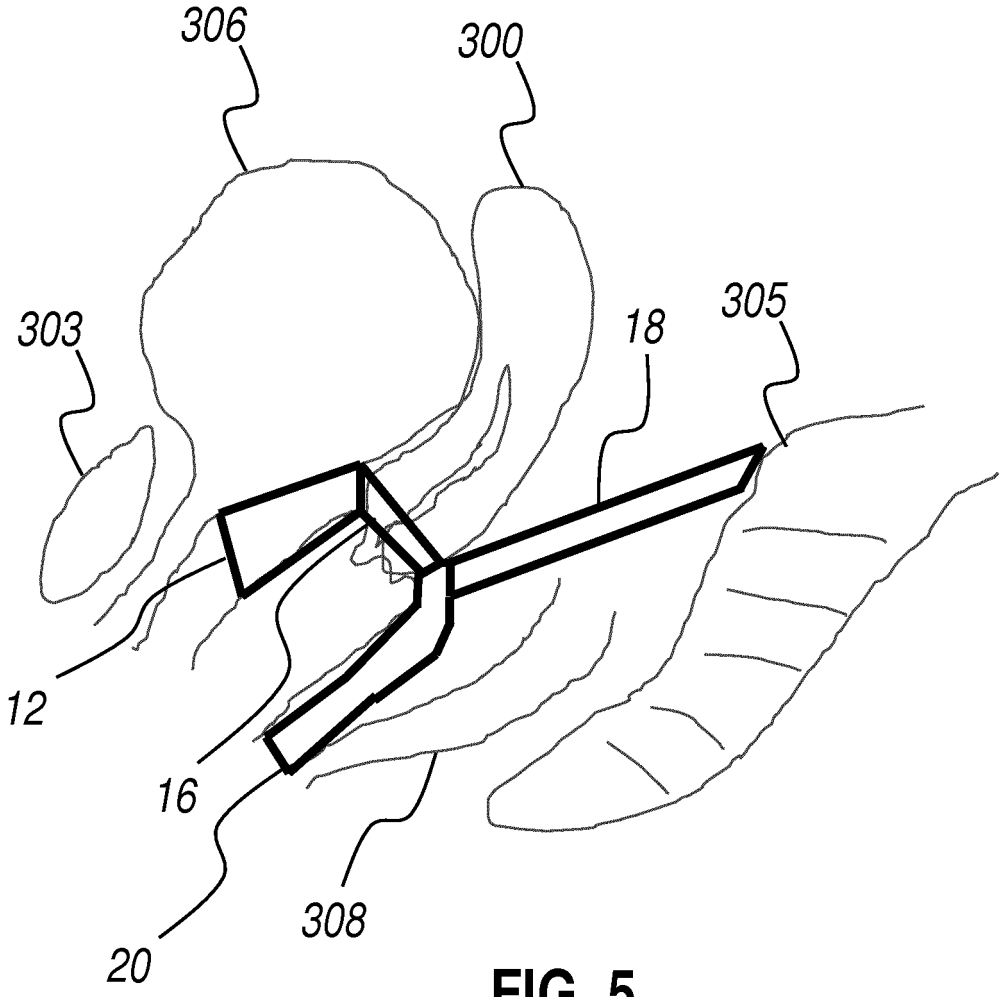

FIG. 5

REFERENCES CITED IN THE DESCRIPTION

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Patent documents cited in the description

- WO 2014008130 A **[0002]**
- EP 2754412 A **[0003]**
- WO 2011037837 A **[0004]**
- US 20100305394 A **[0005]**

专利名称(译)	子宫固定网装置		
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申请(专利权)人(译)	COLOPLAST A / S		
当前申请(专利权)人(译)	COLOPLAST A / S		
[标]发明人	SHARIATI AMIR		
发明人	SHARIATI, AMIR		
IPC分类号	A61F2/00 A61B17/42		
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摘要(译)

本发明描述了一种子宫外固定网10，其包括阴道前部12，右阔韧带部分14，左阔韧带部分16，骶部18和阴道后部20.在所示实施例中，阴道前部12是形状基本为矩形，主要尺寸121约为10厘米，次要尺寸122约为4.0厘米。右阔韧带部分14从前阴道部分12的长边延伸，左宽韧带部分16从前阴道部分12的另一长边延伸。左右宽韧带部分14和16基本上为L形。每个宽韧带部分的厚度尺寸142约为1.2厘米，主要尺寸141约为3.5厘米。左阔韧带部分16位于阴道前部12和后阴道部分20之间。阴道后部20的形状基本为矩形，主要尺寸201约为15cm，次要尺寸202约为4.0cm。骶骨部分18的形状基本上为矩形，并且具有约8cm的主要尺寸181和约4.0cm的次要尺寸202。

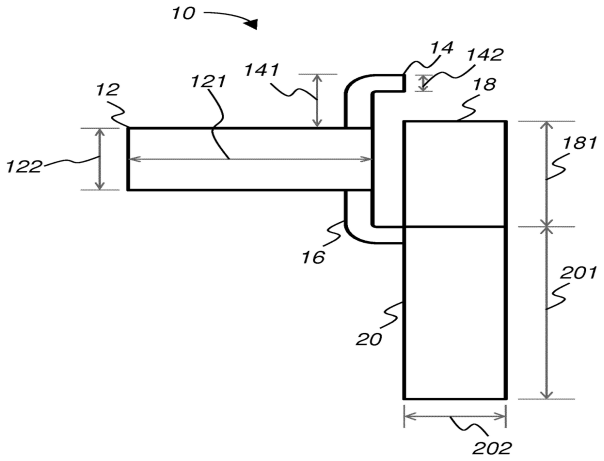

FIG. 1