US010695042B2

(12) **United States Patent**
Marchand

(10) **Patent No.: US 10,695,042 B2**
(45) **Date of Patent: Jun. 30, 2020**

(54) **MARCHAND SALPINGECTOMY—A LAPAROSCOPIC SURGICAL TECHNIQUE**

(71) Applicant: **Greg J. Marchand**, Mesa, AZ (US)

(72) Inventor: **Greg J. Marchand**, Mesa, AZ (US)

(73) Assignee: **Marchand Institute for Minimally Invasive Surgery**, Mesa, AZ (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 155 days.

(21) Appl. No.: **15/786,602**

(22) Filed: **Oct. 18, 2017**

(65) **Prior Publication Data**

US 2019/0110787 A1 Apr. 18, 2019

(51) **Int. Cl.**

A61B 17/02	(2006.01)
A61B 17/34	(2006.01)
A61B 17/42	(2006.01)
A61B 17/29	(2006.01)
A61B 18/14	(2006.01)
A61B 18/00	(2006.01)

(52) **U.S. Cl.**

CPC ***A61B 17/0218*** (2013.01); ***A61B 17/3417*** (2013.01); ***A61B 17/42*** (2013.01); *A61B 17/29* (2013.01); *A61B 17/3421* (2013.01); *A61B 18/14* (2013.01); *A61B 18/1482* (2013.01); *A61B 2017/4233* (2013.01); *A61B 2018/00601* (2013.01)

(58) **Field of Classification Search**

CPC A61B 17/0218; A61B 17/0281; A61B 2017/00637

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,227,736	A *	7/1993	Tucker	H03F 1/3252 327/100
5,921,993	A *	7/1999	Yoon	A61B 17/12013 606/139
2010/0185053	A1 *	7/2010	Hagen	A61B 1/00154 600/114

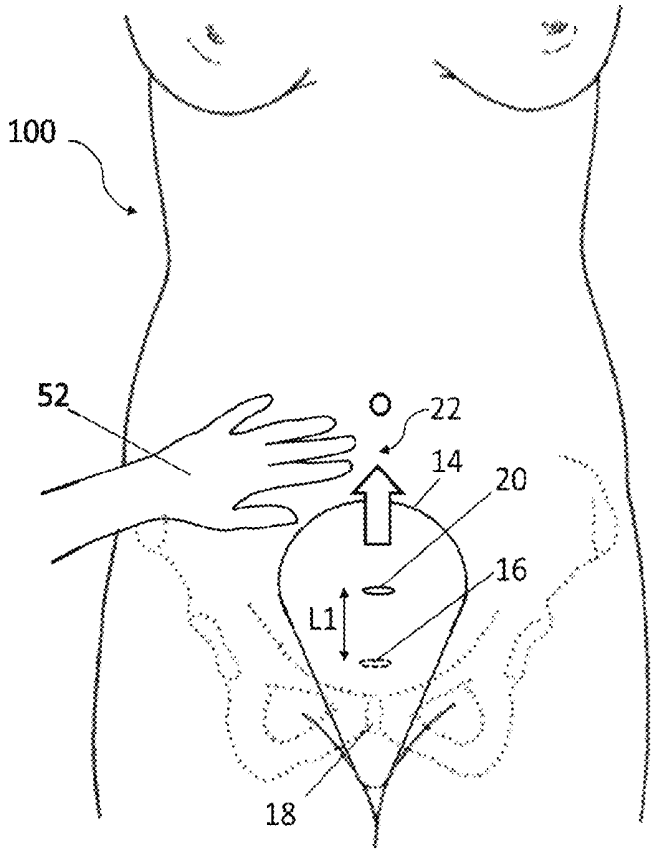
* cited by examiner

Primary Examiner — Anu Ramana

(57) **ABSTRACT**

The Marchand Salpingectomy is a fast, safe and minimally invasive procedure for removal of the fallopian tubes. The procedure involves minimal blood loss and gives the patient the benefit of permanent sterility as well as a decreased lifetime incidence of ovarian cancer. The procedure relies on two novel aspects of the technique which make the surgery significantly different than any surgery previously described as well as extremely minimally invasive.

3 Claims, 3 Drawing Sheets



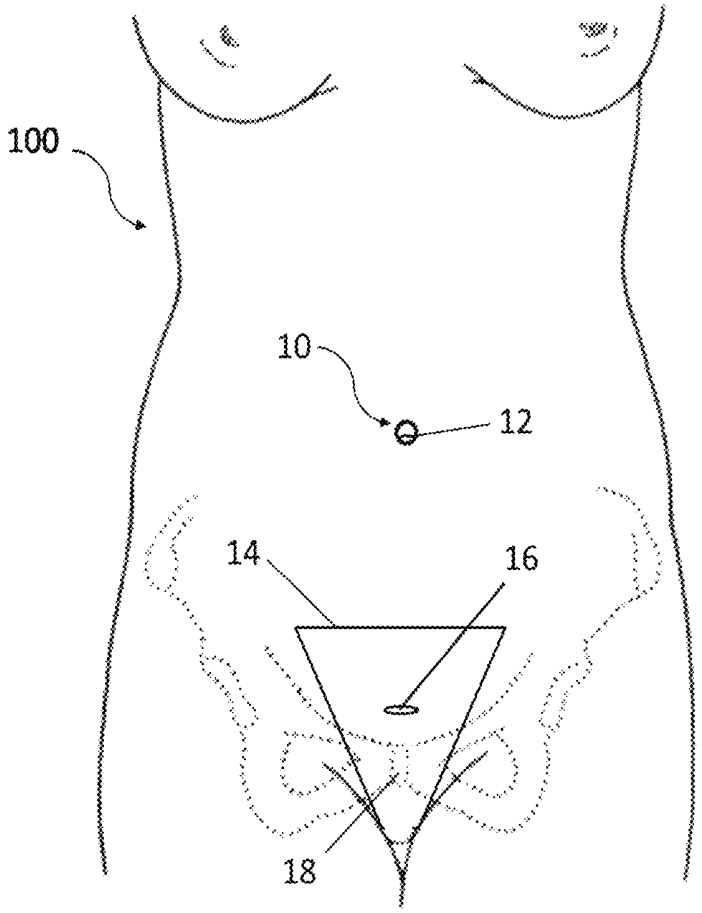


FIG. 1A

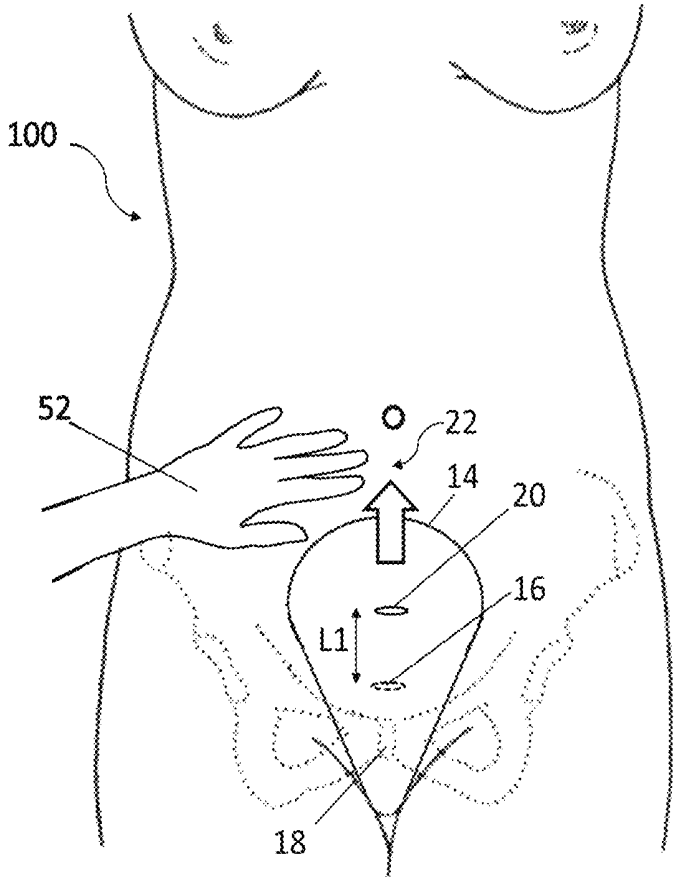


FIG. 1B

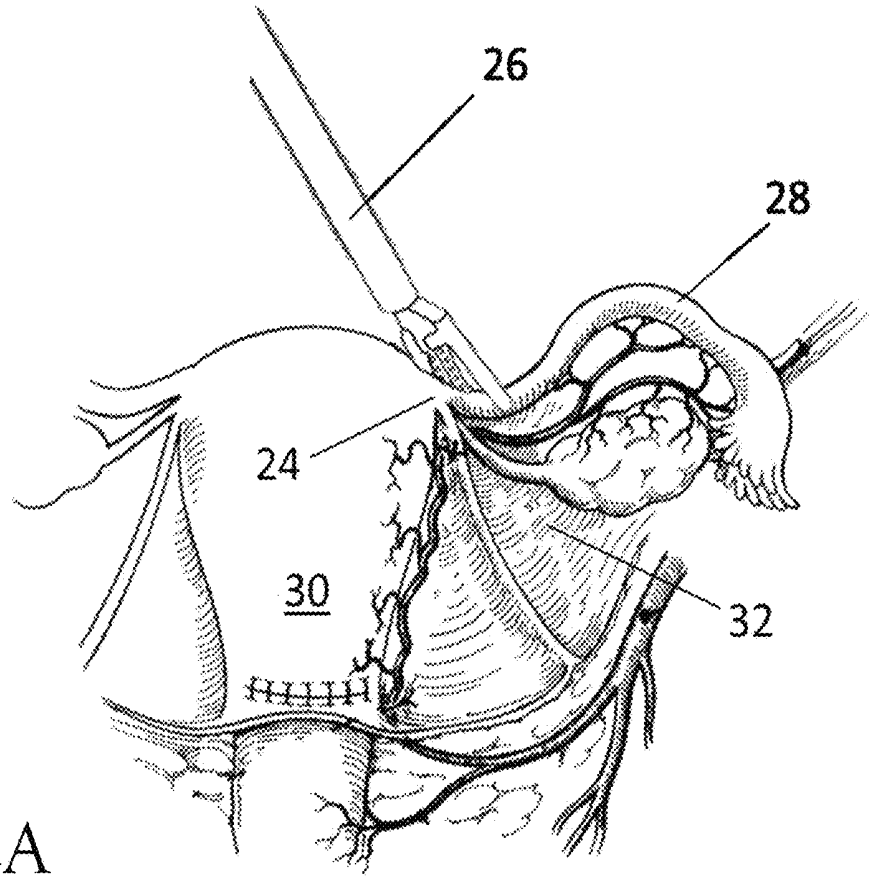


FIG. 2A

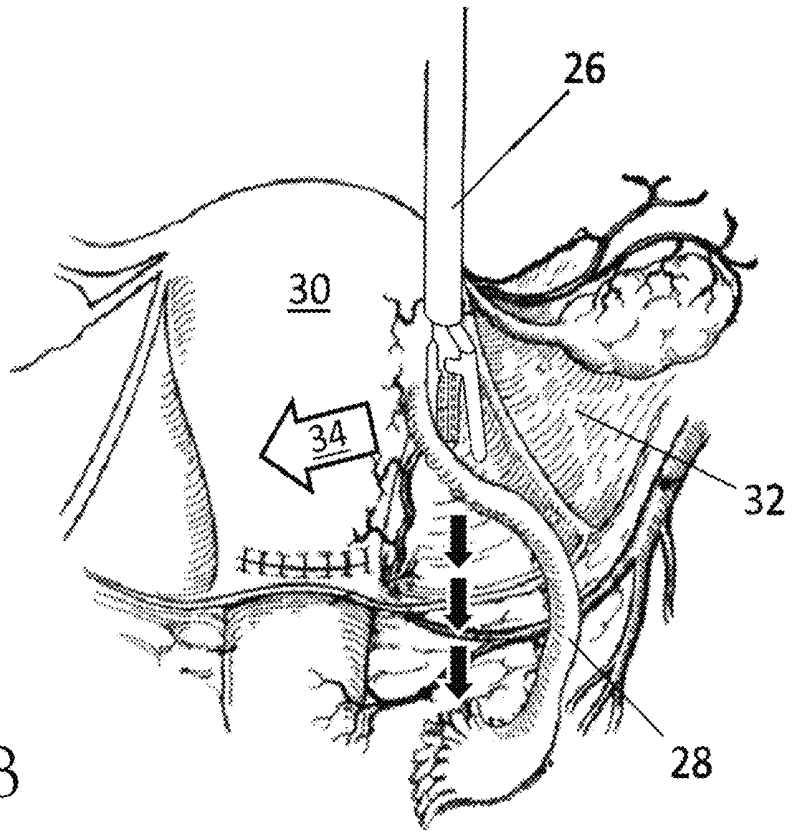


FIG. 2B

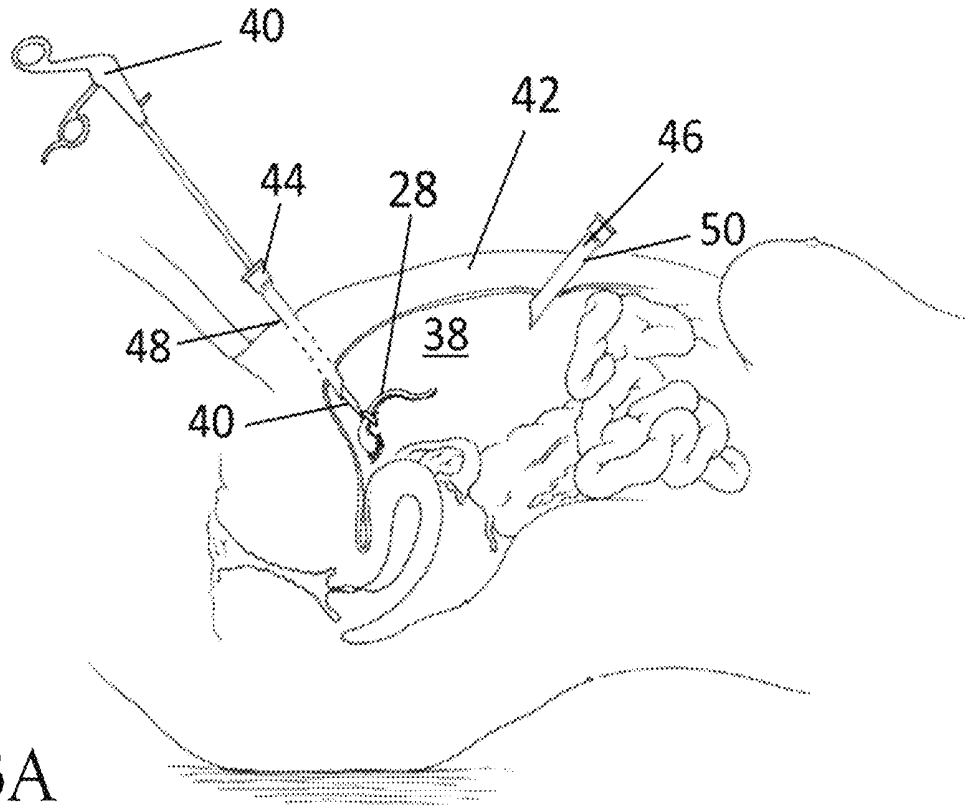


FIG. 3A

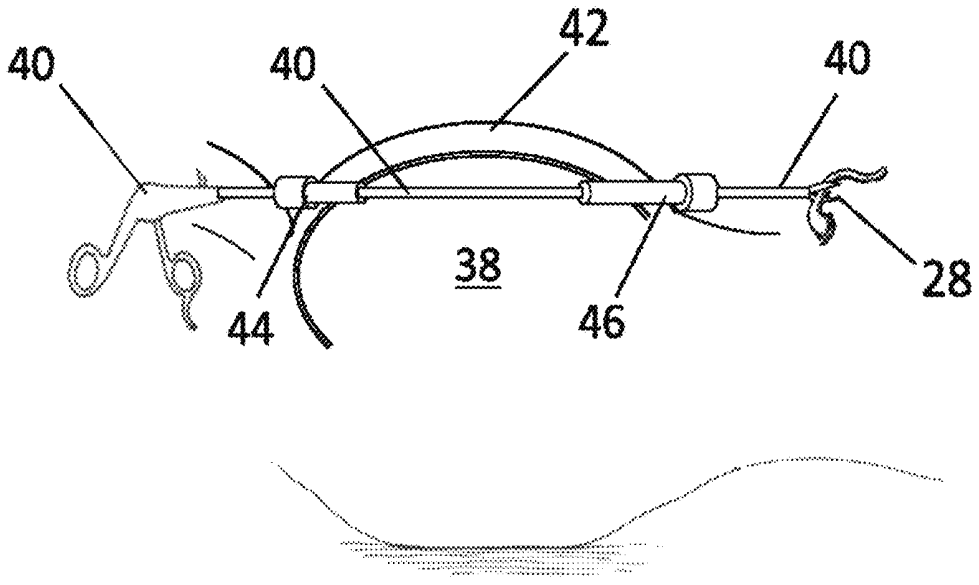


FIG. 3B

MARCHAND SALPINGECTOMY—A LAPAROSCOPIC SURGICAL TECHNIQUE

CROSS-REFERENCE TO RELATED APPLICATION

Original Non-Provisional Application

BACKGROUND

Current surgical techniques exist to remove the fallopian tubes and known laparoscopic techniques include removal of the fallopian tubes using small holes. The surgical technique presented herein, relates to the technical fields of gynecology and laparoscopy surgery, and specifically, removal of the fallopian tubes.

This new technique, includes unique, previously undescribed characteristics which incorporates the unique aspect of the high placement of a 5 mm port which resides through an incision that is below the pubic hairline, the unique aspect of removing the fallopian tubes by plunging each tube individually through an 11 mm port using the 5 mm port and a 5 mm blunt grasper, and represents a new surgical process that is unique and has the potential to decrease operative time while increasing patient safety.

The Marchand Salpingectomy is a fast, safe and minimally invasive procedure for removal of the fallopian tubes. The procedure involves minimal blood loss and gives the patient the benefit of permanent sterility as well as a decreased lifetime incidence of ovarian cancer. The procedure relies on two novel aspects of the technique which make the surgery significantly different than any surgery previously described as well as extremely minimally invasive.

SUMMARY OF THE TECHNIQUE

Known laparoscopic techniques include removal of the fallopian tubes using small holes. The disclosed technique, however, uses an 11 mm and 5 mm laparoscopic trocar port in order to remove the fallopian tubes in a very fast and cosmetic manner with minimal blood loss.

The procedure includes placing an incision of approximately 5 mm approximately 3 cm above the pubic symphysis in the midline, below the pubic hairline. The skin edge is pulled up approximately 3 more cm while placing the abdominal trocar. This gives the unique advantage of a trocar site higher on the abdomen without the disadvantage of a scar.

The procedure also includes placing a small incision and then an 11 mm trocar at the bottom of the umbilicus into the abdominal cavity. A blunt bipolar laparoscopic device using bipolar energy is utilized in order to divide each fallopian tube from their origin at the uterus. The dissection is carried out the entire length of each fallopian through the broad ligament. This is repeated on both sides until both fallopian tubes are free in the abdominal cavity. This technique includes the unique aspect of removing the fallopian tubes by plunging each tube individually through the 11 mm trocar port using the 5 mm port and a 5 mm blunt grasper.

BRIEF DESCRIPTION OF DRAWINGS

FIG. **1**A: Drawing which illustrates the entry points into the abdominal cavity.

FIG. **1**B: Drawing which shows the action of pulling the skin edge cephalad to facilitate a higher entry into the abdominal cavity despite a lower incision below the pubic hairline.

FIG. **2**A: Drawing which shows the dissection of the fallopian tubes using a 5 mm bipolar device.

FIG. **2**B: Drawing which shows the path of the 5 mm bipolar device and forces applied during the dissection of the fallopian tubes from the broad ligament.

FIG. **3**A: Drawing showing the removal of the fallopian tubes using a 5 mm grasper inside the abdominal cavity.

FIG. **3**B: Drawing which shows the removal of the fallopian tubes using one port to plunge the fallopian tube through the other larger port.

DETAILED DESCRIPTION

Known laparoscopic techniques include removal of the fallopian tubes using small holes. The technique disclosed herein uses an 11 mm and 5 mm laparoscopic trocar port in order to remove the fallopian tubes in a very fast and cosmetic manner with minimal blood loss.

The technique begins the patient **100** prepped, draped, and under general anesthesia as is common for laparoscopic techniques. Next, the procedure continues with placing a small first incision **12** and then an 11 mm trocar **46** at the bottom of the umbilicus **10** into the abdominal cavity **38**, and then placing a second incision **16** of approximately 5 mm approximately 3 cm above the pubic symphysis **18** in the midline or medial plane of the body, below the pubic hairline **14**. As shown in FIG. **1**B, the skin edge **22** is manually pulled approximately 3 cm L**1** by a member of the surgical team **52**, causing the second incision **16** to be pulled cephalad while placing the abdominal trocar **44**. This gives the unique advantage of a trocar site **20** higher on the abdomen without the disadvantage of a scar. Because the second incision **16** was originally below the pubic hairline **14**, the incision **16** will ultimately return to this position following the surgery.

Next, a blunt bipolar laparoscopic device **26** using bipolar energy is utilized in order to divide the fallopian tube **28** from the fallopian tube's origin **24** at the uterus **30** as shown in FIG. **2**A. The dissection is carried out the entire length of each fallopian tube **28** through the broad ligament **32** as shown in FIG. **2**B. During the dissection, medial traction **34** is enacted by the bipolar laparoscopic device **26**. The incision plane is kept as medial in the abdominal cavity **38** as possible in order to avoid any possibility of damage to lateral structures. This process is repeated on both sides until both fallopian tubes **28** are free in the abdominal cavity **38**.

The next important and unique aspect of the technique is the removal of the fallopian tubes **28** from the abdominal cavity **38**. FIG. **3**A shows the free fallopian tube **28** being seized within the abdominal cavity **38** by a 5 mm grasper **40** which is utilized through the 5 mm trocar **44**. FIG. **3**B shows plunging the fallopian tube **28** through the 11 mm trocar **46** port using the 5 mm grasper **40**. Each fallopian tube **28** is removed in this manner.

Following this, 30 cc of Marcaine is injected into the abdominal cavity to help with postoperative pain, and the fascia for the 11 mm incision **12** is closed with a vicryl. The skin for both the first incision **12** and second incision **16** is closed with glue and covered with band-aids. The surgery is then considered complete.

As presented, this technique includes the unique aspect of the high placement of the 5 mm trocar port **44** which resides through an incision **16** that is below the pubic hairline **14**, the

unique aspect of removing the fallopian tubes **28** by plunging each tube individually through the 11 mm trocar port **46** using the 5 mm port **44** and a 5 mm blunt grasper **40**, and represents a new surgical process that is unique and has the potential to decrease operative time while increasing patient safety.

The invention claimed is:

1. A method to introduce a 5 mm trocar port through an incision that is below the pubic hairline of a patient comprising the steps of:

creating an incision at a point located near the medial plane of the patient between the pubic symphysis and the anterior edge of the pubic hairline; said incision defined by a skin edge whereby applying pressure cephalad on the external surface of the patient's abdomen causes the skin edge of said incision to traverse cephalad a distance of approximately 3 cm to a high placement location and;

introducing a distal end of a 5 mm trocar into the abdominal cavity of the patient through the incision located at the high placement location.

2. A method of dissecting a fallopian tube from a patient's uterus and removing said fallopian tube from the patient's abdominal cavity comprising the steps of:

introducing a distal end of a first trocar into the abdominal cavity of a patient through a first incision, wherein the first incision is located at the bottom of the umbilicus;

creating a second incision at a point located near the medial plane of the patient between the pubic symphysis and the anterior edge of the pubic hairline;

applying pressure on the external surface of the patient's abdomen to cause said second incision to traverse cephalad a distance of approximately 3 cm to a high placement location;

introducing a distal end of a second trocar into the abdominal cavity of the patient through the second incision located at the high placement location;

introducing a distal end of a bipolar laparoscopic device having the capability to perform dissection by utilizing bipolar energy, into the patient's abdominal cavity through a port existing in the second trocar;

dividing the patient's fallopian tube utilizing the bipolar laparoscopic device from the uterus at a point where said fallopian tube originates at the uterus;

continuing the dissection of the fallopian tube from the broad ligament of the uterus utilizing the bipolar laparoscopic device while applying medial traction onto the lateral wall of the fallopian tube with said bipolar laparoscopic device until the fallopian tube is free in the abdominal cavity;

introducing a distal end of a grasping device having a pair of opposing jaws into the patient's abdominal cavity through the second trocar and seizing the free fallopian tube from the abdominal cavity within said jaws; and

passing the distal end of said grasping device holding said free fallopian tube from the abdominal cavity through the first trocar such that the jaws of said grasping device and free fallopian tube are presented outside of the patient's body.

3. A method of dissecting a pair of fallopian tubes from a patient's uterus and removing said fallopian tubes from the patient's abdominal cavity comprising the steps of:

introducing a distal end of a first trocar into the abdominal cavity of a patient through a first incision, wherein the first incision is located at the bottom of the umbilicus;

creating a second incision at a point located near the medial plane of the patient between the pubic symphysis and the anterior edge of the pubic hairline and introducing a distal end of a second trocar into the abdominal cavity of the patient through the second incision;

introducing a distal end of a bipolar laparoscopic device having the capability to perform dissection by utilizing bipolar energy, into the patient's abdominal cavity through a port existing in the second trocar;

dividing the patient's first fallopian tube utilizing the bipolar laparoscopic device from the uterus at a point where said first fallopian tube originates at the uterus;

continuing the dissection of the first fallopian tube from the broad ligament of the uterus utilizing the bipolar laparoscopic device while applying medial traction onto the lateral wall of the first fallopian tube with said bipolar laparoscopic device until the first fallopian tube is free in the abdominal cavity;

dividing the patient's second fallopian tube utilizing the bipolar laparoscopic device from the uterus at a point where said second fallopian tube originates at the uterus;

continuing the dissection of the second fallopian tube from the broad ligament of the uterus utilizing the bipolar laparoscopic device while applying medial traction onto the lateral wall of the second fallopian tube with said bipolar laparoscopic device until the second fallopian tube is free in the abdominal cavity;

introducing the distal end of a grasping device with a pair of opposing jaws into the patient's abdominal cavity through the second trocar and seizing the free first fallopian tube from the abdominal cavity within said jaws and passing the distal end of said grasping device holding said free first fallopian tube from the abdominal cavity through the first trocar such that the jaws of said grasping device and free first fallopian tube are presented outside of the patient's body;

re-introducing the distal end of the grasping device with opposing jaws into the patient's abdominal cavity through the second trocar and seizing the free second fallopian tube from the abdominal cavity within said jaws and passing the distal end of said grasping device holding said free second fallopian tube from the abdominal cavity through the first trocar such that the jaws of said grasping device and free second fallopian tube are presented outside of the patient's body.

* * * * *

专利名称(译)	马氏输卵管切除术—腹腔镜手术技术		
公开(公告)号	US10695042	公开(公告)日	2020-06-30
申请号	US15/786602	申请日	2017-10-18
发明人	MARCHAND, GREG J.		
IPC分类号	A61B17/02 A61B17/34 A61B17/42 A61B17/29 A61B18/00 A61B18/14		
CPC分类号	A61B17/0218 A61B17/42 A61B17/3417 A61B18/14 A61B18/1482 A61B17/29 A61B2018/00601 A61B17/3421 A61B2017/4233		
其他公开文献	US20190110787A1		
外部链接	Espacenet		

摘要(译)

Marchand输卵管切除术是一种快速,安全且微创的切除输卵管的方法。该程序减少了失血量,使患者受益于永久性无菌以及降低了卵巢癌的终生发病率。 该程序依赖于该技术的两个新颖方面,这些方面使该手术与先前描述的任何手术都显着不同,并且具有极低的侵入性。