台灣婦產科醫學會 111 年度年會暨學術研討會

論文摘要

稿件編號：V2

臨時稿件編號：
0421

# 腹腔鏡輔助扇葉狀-腹膜陰道重建手術於苗勒管發育不全(MRKH 綜合症)病患的身心理滿意度結果

# Outcomes of Laparoscopic fan-blade shape peritoneal Vaginoplasty Technique in Patients with Mayer-Rokitansky-Küster-Hauser Syndrome

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論文發表方式：
影片展示

論文歸類：
內視鏡

Objective:
To describe modifications of peritoneal pull-down laparoscopic technique (Davydov's) in patients with Mayer-Rokitansky-Kuster (MRK) syndrome and evaluation anatomical, functional and peri-operation outcome of the novel technique with fan-blade shape peritoneal flap, known as Yu's modification.
Design: Case series study
Setting: Tertiary university hospital
Patient(s): Women with Mayer-Rokitansky-Küster-Hauser syndrome (MRKHS) who underwent surgery between 2016 and 2020.
Intervention(s):
Laparoscopic fan-blade shape peritoneal vaginoplasty support to the neovagina.
Main Outcome and Main Result (s):
Anatomic and functional outcome and satisfaction results Patients underwent surgical creation of a neovagina. Total 7 patients who underwent the Yu's-modified Davydov procedure. Mean (SD) duration of surgery 140 minutes, Blood loss less than 100ml. The mean follow-up time was 50 months (range 16-66 months) after surgery, the mean vaginal length up to 8 cm, Among patients who had regular vaginal intercourse, the mean functional satisfaction was above average. The average hospital stay was 5.6 days No patient had peri-operative bladder injury, bowel injury, or rectovaginal fistula after long-term follow-up. One woman who did not comply with the prescribed postoperative mold exercises had no closure of neovagina.
Conclusion:
The Yu's-modified Davydov procedure appears to be an effective and safe surgical management option that is easy to learn and perform by gynecologic surgeons. Moreover, the use of a peritoneal graft may be a good alternative to other widely used neovagina techniques vaginoplasty.

論文摘要

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| 稿件編號：V3<br>臨時稿件編號：<br>0541 | 如何在子宮內膜異位瘤剝離手術中保留最多的卵巢功能<br>Optimize the stripping procedure in endometriosis surgery to maximize ovarian reserve<br><br>楊佳璇[1] 顏志峰[1]<br>林口長庚醫院[1] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Introduction:<br>Endometriosis is one of the common benign gynecological problem among women and up to 44% of cases involving in ovaries. The group of patients who undergo surgical management have either bothersome symptoms or for infertility purposes which happening to be pre-menopausal, thus, to reserve as much ovarian function as possible, makes a significant difference among the group, most importantly, for the ones that desire to get pregnant. However, several authors have suggested that endometrioma cystectomy may be harmful for ovarian tissue and surgeons not only require to have knowledge of surgical procedures<br>but also the histopathology of endometriomas in order to preserve the most ovarian parenchyma. Evidence of histopathologic studies have shown that endometrioma cystectomy frequently leads to the removal of large fragments of adjacent ovarian tissue, consequently ending up in decreased ovarian reserve function.<br><br>Materials and methods:<br>Surgical video of a case with a 35 y/o female without underlying diseases nor history of adnexal surgeries who presented dysmenorrhea for 1 year and sonography showed bilateral ovarian endometrioma with size up to 5cm. She also has plan to conceive in the future. Therefore, laparoscopic adnexal enucleation was suggested. In this video, the adjacent structures were identified including the lesion itself and IP ligament, most importantly, we demonstrated the “fibrotic layer”(white) and endometrial layer(dark red/black) of the ovarian endometrioma. The technical pearl for effective and optimized stripping procedure in endometriosis surgery is illustrated.<br><br>Results:<br>After inspecting the pelvic cavity via laparoscope, we can see some endometriosis spots in the pelvis with some adhesions, but bilateral adnexa were relatively free and intact. Since there was no obvious rupture or opening on the cyst, we made a central incision to reveal the cleavage plane which divides the cyst into two halves. The incision should be away from the blood vessels in the hilum/meso-ovarium to avoid unnecessary bleeding or damage to the ovarian blood supply. The identification of the cleavage plane is the key element for reserving as much ovarian tissue as possible. To know whether the dissecting layer is correct meaning we only tear the cystic capsule apart from the ovarian parenchyma, we see the white fibrosis layer remaining on the wanted plane and the unwanted part is only a very thin black layer. If this technique is executed consistently and skillfully, there would be barely any surgical related bleeding, moreover, requiring less bipolar coagulation for hemostasis which may also possibly damage the ovarian tissue. At the end, we reconstruct the ovary with monofilament using pursing string suture so the piece of ovarian tissue doesn’t just hang in the pelvis, in the meanwhile, leaving a drainage site to avoid hematoma in the ovary. We have reviewed this patient’s histopathology slides and discussed with the gynaecological pathologist. Most of the lesion parts indicated only the endometrial and fibrotic layer with minimal ovarian parenchyma.<br><br>Conclusion:<br>Endometriosis enucleation is a common surgical procedure, however, to minimize the damage of ovarian tissue during the process becomes a skill dependent issue and challenge for surgeons. With the corroboration of histopathology evidence, we believe the concept of optimizing stripping procedure in endometriosis based on the color separation is applicable and will maximize the ovarian reserve. |

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| 稿件編號：V4<br>臨時稿件編號：<br>0624 | 達文西機器人腸沾黏分離術應用於有複雜手術史的患者，包括剖腹探查腹膜炎手術、開腹子宮肌瘤切除術和多次腹腔鏡手術<br>da Vinci robotic enterolysis and adhesiolysis for patients with operation histories including explore laparotomy for peritonitis, laparotomy myomectomy and multiple laparoscopic surgeries<br><br>莊乙真[1] 劉馨鎂[1] 王孝榮[1] 黃芃瑄[1] 鍾佳翰[1] 李大成[1] 盧信芬[1] 彭福祥[1] 陳思原[2]<br>亞東紀念醫院[1] 台大醫院[2] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Objective:<br>The formation of adhesions will distort the anatomical structures of the abdomen and pelvis, especially the adhesions between the greater omentum, intestines, abdominal wall, bladder, uterus and adnexa. In minimally invasive gynecological surgery, it has always been a difficult choice to perform an endoscopic approach with conversion to laparotomy. However, with the help of the 3D vision and endowrist function of the da Vinci surgical system, the conversion rate can be greatly reduced.<br><br>Methods:<br>Here we presented 3 video clips including<br>Case 1:<br>A 57-year-old menopausal woman, with an ovarian cyst lasting 9x9 cm without obvious solid parts, underwent robotic enterolysis and oophorectomy. She had a history of laparotomy for complicated peritonitis and intestine resection with a 20 cm longitudinal abdomen scar.<br>Case 2 :<br>A 46-year-old woman, with a huge adenomyoma and anemia underwent robotic adhesiolysis and subtotal hysterectomy. There were severe adhesions of the sigmoid colon and bladder to the posterior and anterior wall of the uterus. She had a history of laparotomy myomectomy.<br>Case 3:<br>A 43-year-old woman, with adenomyosis, endometriosis and chronic abdominal pain underwent robotic adhesiolysis and subtotal hysterectomy. She had a history of four laparoscopic and robotic surgeries.<br><br>Results:<br>All da Vinci robotic surgeries were completed without conversion to laparotomy.<br><br>Conclusion:<br>In our limited experiences, Da Vinci Robot could have a better role in entero-lysis and adhesion-lysis than traditional laparoscopy. Further studies are warranted. |

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| 稿件編號：V5<br>臨時稿件編號：<br>0631 | 吊頸式止血帶：在腹腔鏡子宮肌瘤切除時一個創新的暫時性止血技法<br>Hangman's tourniquet(HMT)：a novel technique to temporarily reduce blood loss during laparoscopic myomectomy<br><br>陳欣儀[1] 郭信宏[1]<br>林口長庚醫院婦產部[1] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Uterine leiomyoma is the most common benign tumor occurring in women of reproductive age. Treatment include expectant, medical, and surgical. For symptomatic patients requiring surgery, laparoscopic myomectomy offers fertility preservation and rapid postoperative recovery. However, due to the intricate surgical techniques required, the laparoscopic approach may be challenging and potentially result in severe intraoperative hemorrhage.<br><br>Pharmacologic management for intraoperative hemorrhage include vasoconstrictors, uterotonics, and tranexamic acid while surgical intervention may be application of hemostatic clips on the uterine or ovarian vessels.<br><br>Due to the abundant yet highly variable vessel supply around the uterus, tying off the uterine arteries may not necessarily reduce the blood supply to the uterus; as a result, the attempt to reduce intra-operative blood loss is suboptimal.<br><br>Therefore, we propose using the HMT approach, which include the following steps: Expose the parametrial space around the broad ligament to create a window for passing a knotted suture. The knot can be made outside the abdominal cavity then slide intraoperatively to secure at the pericervical isthmic level, which occludes the ascending branch of uterine artery. Meanwhile, additional sutures are made at bilateral infundibulopelvic ligament to occlude the blood supply in that area. Upon completion of the operation, we then remove all the hemostatic sutures to monitor changes of the uterine and ovarian perfusion.<br><br>This video demonstrates the surgical steps of HMT and highlights the effect before and after the HMT procedure |

稿件編號：V6

臨時稿件編號：
0589

# 以子宮鏡手術移除第一孕期子宮角懷孕的胚胎組織
# Hysteroscopic removal of the first trimester angular pregnancy

蔣奐巧[1] 白欣玉[1] 顏志峰[1]
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論文發表方式：
影片展示

論文歸類：
內視鏡

Introduction
Angular pregnancy is referred to as an intrauterine implantation in either lateral angle of the uterine cavity, medial to the uterotubal junction. If left untreated, an angular pregnancy bears high risks of uterine rupture or placenta accreta, depending on its proximity to the interstitial portion. In current practice, main treatment options included transcervical suction evacuation, transabdominal cornuostomy and corneal wedge resection. Theoretically, angular pregnancy could be approached through the uterine cavity. The objective of this video is to present the successful application of hysteroscopy in the removal of angular pregnancy.

Case report
We reported a pregnant woman at 6w4d with abdominal pain transferring to Linkou Chang Gung memorial hospital for surgical management of a presumed angular ectopic pregnancy. Transvaginal sonography and computed tomography scan confirmed a left angular pregnancy. With hysteroscopy, the surgery started with careful exploration of the upper cervical canal. Separation of the decidua basalis and the associated chorionic frondosum from the uterus could be effectively achieved by gently sweeping the myometrial wall with the loop resectoscope, given that the placental cytotrophoblasts do not grow beyond the distal myometrial segment until the early second trimester. Electrocautery was rarely required. Upon completion, the chorionic villi can be grasped in between the working instrument and the hysteroscope and removed with minimal blood loss.

Conclusion
Operative hysteroscopy offers surgeons the benefit of direct visualization when confidently detaching the decidua basalis from the sharped-angled and restricted cornual uterine cavity . It prevents patients from having uterine incision with abdominal wounds and avoids the risk of incomplete removal or inadvertent trauma of the traditional blind curettage.

台灣婦產科醫學會 111 年度年會暨學術研討會

論文摘要

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| 稿件編號：V7<br>臨時稿件編號：<br>0614 | 用達文西就不困難肌瘤切除術<br>Difficult deep pelvic myomectomy by robotic approach<br><br>張季涵 [1] 龐浸醛 [1,2]<br>花蓮慈濟婦產部 [1] 花蓮慈濟婦產部婦科微創手術中心 [2] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Aims and objective<br>To present a case of multiple myomas including a deep pelvic myoma who received robotic myomectomy<br><br>Methods and material<br>Miss Lin, P0, is a case of multiple myomas presented with the signs and symptoms of menorrhagia and anemia. The images study revealed two myomas, one at anterior fundus about 5.23 X 4.5 cm and one at deep left pelvis about 7.2 X 6.9 cm in size, laboratory data showed Hb 11.1g/dL. After discussion with the patient, we performed robotic myomectomy for her. The difficulties of this case are:1. Big protruding myoma ; 2. Deep left pelvic broad ligamentous myoma where ureter passed by close below myoma; 3. Hemostasis in a curved area in the pelvis (a big deep cave was noted after removal of the myoma).With the rotary arms and 3D vision of robotic system, these difficulties are not difficulty anymore. The most advantage of robotic approach is the reforming and ensured suturing of the uterine wounds can be achieved easily. Baseball suturing will be shown in the video. We removed the specimens with contained manual morcellation because this is an effective way to remove myoma and it can avoid parasitic myoma in the future.<br><br>Results<br>During surgery the findings were:<br>1. Multiple myomas were seen, the big and protruding one was located at anterior wall about 10x9 cm; There are small subseroasal myomas, one on right posterior uterine wall about 3 cm ; two at posterior lower segment of uterus about 3.5 and 2 cm in diameter; Another big one was a broad ligament myoma, about 11x10cm in size, arising from the left side of cervix or lower segment of uterus extended to deep pelvis and very closed to the left ureter.<br>2.There was two paratubal cysts on the left frimbriae end, about 2.5 and 1cm in size.<br>3. Polycystic ovaries were seen, drilling surgery on bilateral ovaries were done.<br><br>Conclusion<br>We hope to share the video of the surgery on the coming meeting. |

稿件編號：V8

臨時稿件編號：
0539

# 速潔刀 5.0 的應用技巧: 不施行擴張術下於停經後婦女併子宮頸狹窄的案例分享
# Tips and tricks of using Truclear 5.0™ system in postmenopausal women without cervical dilation

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義大醫院婦產部 [1]

論文發表方式：
影片展示

論文歸類：
內視鏡

Introduction
Mechanical hysteroscopic tissue removal system, bipolar and monopolar resectoscope are important tools for the diagnosis and management of intrauterine pathology. Truclear™, the device provides an open cutting window, shaves and aspirates tissue so that improve visualization by avoidance production of tissue fragments. Truclear 5.0™ system consists of a 5-mm hysteroscope with a 0-degree direction of view and a 5.6 mm outer sheath require little-to-no dilation.

Case report
This 69-year-old woman, gravida 4 and para 4(all via vaginal delivery), suffered from post-menopausal bleeding for one week. Transvaginal sonography revealed focal endometrial thickening and fluid accumulation in uterine cavity. Hysteroscopic surgery was arranged. We share our experience of using Truclear 5.0™ system in post-menopause woman without cervical dilatation.

Discussion
In post-menopause woman with intra-uterine cavity abnormalities had higher risk of malignancy. Operative hysteroscope should be approach with carefully. Nevertheless, a stenotic cervix can obstruct surgery, dilation of stenotic cervix can lead to a cervical laceration or creation false passage or uterine perforation. In this video, we focus on discussion tips and tricks of using Truclear 5.0™ system, an alternative safety way to approach stenotic cervix and atrophic uterus.

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論文摘要

稿件編號：V9

臨時稿件編號：
0490

# 達文西機械手臂輔助手術用於治療深部浸潤型子宮內膜異位症，包含輸尿管輸尿管吻合術

# Robotic surgery approach for deep infiltrating endometriosis, including ureteroureterostomy

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論文發表方式：
影片展示

論文歸類：
內視鏡

Endometriosis is a benign disease but affect woman in quality of life and the fertility. It is a condition that endometrial glands implant outside the uterine cavity. Deep infiltrating endometriosis(DIE) is defined as endometriosis which invades more than 5 mm deep to the peritoneum of the pelvic sidewalls, the rectovaginal septum, or the muscularis of the bowel, bladder or ureters. Endometriosis may cause pelvic pain and infertility, and DIE may induce other symptoms including dyspareunia, bowel and bladder dysfunction.

For symptomatic DIE, surgery is often required to achieve symptoms relieving. And for the best outcomes, a complete resection of invaded tissue is required. When the surgery treatment is planned, the minimal surgery using laparoscopy is preferred then laparotomy with shorter length of hospitalization, faster recovery time and decreased wound pain. Robotic surgery is the advanced equipment which offered the 3D imaging, tremor filter, and articulated instruments, help to improve the accuracy of surgical procedure.

We showed the video of one case with adenomyosis and deep infiltrating endometriosis with left lower third ureter stricture, da vinci hystertectomy and bilateral salpingectomy, and da vinci segmental resection of left ureter and left ureteroureterostomy were performed. After operation, she had regularly followed up at genitourinary doctor’s OPD, with well outcomes. Under our experience, complex surgery with robotic approach is better way and bring the comfort and greater accuracy.

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| 稿件編號：V10<br>臨時稿件編號：<br>0438 | 面對嚴重沾黏之巨大子宮以非傳統肚臍孔進行腹腔鏡手術<br>Laparo-endoscopic Surgery via Non-umbilical Access at a Severe Abdominal Adhesion Huge Uterus<br><br>陳俊男[1] 桂羅利[2] 張基昌[3] 張裕[2]<br>義大醫院婦產部[1] 義大醫院婦產部內視鏡科[2] 義大大昌醫院婦產科[3] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Background:<br>In gynecology, laparo-endoscopic is used for many surgeries that were traditionally performed by laparotomy. Potential advantages of laparoscopy over laparotomy include smaller scars, faster recovery, decreased adhesion formation, and decreased cost. Gynecologic laparoscopic entry is usually through the umbilicus. However, some anatomic factors or conditions may increase the risk for complications with umbilical entry. For those patients who was known or suspected periumbilical adhesions, periumbilical mesh, umbilical or ventral hernia, large pelvic mass, and pregnancy, non-umbilical access may be preferred under these situations.<br><br>Patient and Methods:<br>A 48-year-old woman (gravida 0, sexual activity history) who presented to our hospital complaining of a palpable lower abdominal mass for months. She had history of multiple myoma and received laparo-myomectomy in 2008. She had followed up after surgery but lost followed since 2013. In recent years, heavy vaginal bleeding during menstrual cycle was noted. Urinary frequency and urgency were recurrence in this year. Due to above reasons, she came to our outpatient department for help. Gynecologic ultrasound revealed a huge uterus with multiple heterogeneous lesions about 21 x 8 cm. Computed tomography (CT) also confirmed a enlarged uterus with multiple mass sized 17.5 x 16.4 x 8.7 cm. Tentative diagnosis was multiple uterus leiomyoma. Patient received gonadotropin-releasing hormone (GnRH) analogue at first and kept follow up symptoms. Unfortunately, menorrhagia was still noted. After discussed, patient decided to receive surgical treatment.<br><br>Results:<br>Two-ports laparoscopic subtotal hysterectomy and left salpingectomy and right salpingo-oophrectomy and adhesiolysis was performed. The uterus had severe adhesion to pelvic wall, abdominal wall, descending colon, and omentum were noted during surgery. Bilateral tubal cyst were noted. Histopathological examination showed that leiomyoma, negative for malignancy. Finally, the patient recovered well and discharge 3 days after the operation.<br><br>Conclusions:<br>We need to do preoperative evaluation prior to laparoscopy of assessment for risk factors for adhesive disease and other conditions that may alter the anatomy of the abdominal wall and peritoneal cavity. For patients with a pelvic mass which is palpable and is within the insertion path of the insufflating instrument, non-umbilical entry site or entry at the umbilicus using an open technique are reasonable approaches. |

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| 稿件編號：V11<br>臨時稿件編號：<br>0553 | 達文西輔助經陰道自然孔內視鏡全子宮切除手術<br>Robotic assisted transvaginal natural orifice transluminal endoscopic surgery (vNOTES) for total hysterectomy<br><br>莊斐琪[1] 黃寬慧[1] 楊采樺[1] 吳昱靜[1] 陳文欣[2] 周鈺敏[1] 龔福財[1]<br>高雄長庚紀念醫院婦產部[1] 嘉義長庚紀念醫院婦產科[2] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Objective<br>Vaginal route surgery avoids problems related to abdominal wall incisions and trocar-related complications. The vNOTES technique incorporating the advantages of endoscopic surgery can help overcome the limitations of vaginal hysterectomy in cases without uterine prolapse or with large sized uterus. However, the vNOTES procedures with conventional laparoscopic instruments are limited by some factors including loss of triangulation and unstable operative platform. Robotic system providing instrument of flexible wrist rotation, high-resolution 3-D magnification field of vision, and stable camera control conquers these limitations.<br><br>Materials and Methods:<br>The video will show the application of robotic system for vNOTES total hysterectomy.<br><br>Results<br>This procedure results in high patient satisfaction, rapid recovery, cosmetic advantages, and decreased postoperative pain.<br><br>Conclusion<br>The application of robotics in vNOTES intervention is feasible and it improves ergonomics for surgeon comfort . |

稿件編號：V12

臨時稿件編號：
0512

# 子宮鏡子宮黏膜下肌瘤切除 ：速潔刀與雙極切割之比較
# Hysteroscopic myomectomy : comparison of intrauterine morcellation and bipolar resection

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論文發表方式：
影片展示

論文歸類：
內視鏡

Study Objective:
To present hysteroscopic intrauterine morcellation and bipolar resectoscopic surgery for submucosal myoma removal.
Patient :
Case 1. The 32 year-old female, G0 virgin, with no significant medical and surgical history. She presented to our outpatient clinic due to menorrhagia and intermenstrual bleeding for months. The ultrasonography examination showed endometrial thickening and submucosal myoma was considered. The office hysteroscopy revealed a 1.7cm of type II submucosal myoma.
Case 2. The 44 year-old female, G1P1 vaginal delivery, with surgical hypothyroidism history. She has severe dysmenorrhea and also severe menorrhagia so she came to our out patient department for help. The sonography examination showed a 3.8 x 3 cm lesion. The office hysteroscopy revealed a 2.1 cm of type II submucosal myoma.
Interventions:
Hysteroscopic myomecyomy with intrauterine morcellation and bipolar resection.
Discussion :
Since the introduction of hysteroscopic surgery, submucous myoma was preferably removed by hysteroscopic electrosurgery. Monopolar electrosurgical resection has been widely replaced by safer bipolar instruments because of the common potential complication of distending medium fluid. The disadvantages of hysteroscopic resection surgery was longer learning-curve, suboptimal surgical view due to bubble formation and repeated in and out instruments during surgery. The advantages of hysteroscopic intrauterine morcellation was shorter learning-curve and one instrument insertion for submucosal myoma removal. However, the tumor size and hemostasis were limitation of hysteroscopic intrauterine morcellation.
The hysteroscopic myomectomy is a very important application of the gynecologic endoscopy, as it allows minimal invasive removal of the type 0, 1, and 2 fibroids.

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| 稿件編號：V13<br>臨時稿件編號：<br>0641 | 經陰道自然孔洞內視鏡手術在有卵巢腫瘤的懷孕婦女的應用<br>vNOTES for ovarian tumor during pregnancy<br><br>陳俐曄 [1] 丁大清 [1] 賴佩璇 [1]<br>花蓮慈濟醫院婦產部 [1] |
| 論文發表方式：<br>影片展示<br>論文歸類：<br>內視鏡 | Background<br>Although ovarian mature cystic teratomas compromise 20-30% of all ovarian tumours, there are still many challenges faced by gynecologists on deciding upon the best surgical management, especially on pregnant women. Vaginal natural orifice transluminal endoscopic surgery (vNOTES) is a novel minimally invasive surgical technique allowing a variety of gynecological procedures that may be considered. We are presenting the first case of a pregnant woman with teratoma undergoing vNOTES.<br><br>Patient concerns<br>The lady concerned was a 21 y/o, G1P0, GA 14+3 weeks, Expected Date of Delivery(EED): 110/05/15 women who went to our Outpatient Clinic with presentation of intermittent mild sharp pain and dull pain at her right lower abdomen when walking or moving lower limbs recently. A 5.9x5.4cm heterogeneous mass suspected teratoma was found at her right adnexa by sonography. Therefore, Laparoendoscopic single-site(LESS) Laparoscopic Assisted Ovarian Cystectomy(LAOC) was arranged.<br><br>Interventions<br>Initially, right ovarian teratoma located at right side of Cul-De-Sac with hair and fatty tissue in contain (size: 5*6cm) was seen under laparoscopy. As an enlarged uterus occupying the pelvic cavity, the right ovarian tumor became more difficult to approach under laparoscopy. Therefore, we shifted the operation from LESS LAOC to vNOTES LAOC on 110/11/18. Total blood loss was less than 50ml. Pathology report showed mature cystic teratoma. The patient recovered well and was discharged two days after operation due to well recovery without any complication.<br><br>Outcomes<br>vNOTES was proved to improve patient comfort and cosmetic results while reducing blood loss and duration of the surgery. In this case, vNOTES also make ovarian cystectomy feasible during early pregnancy. This is the first case to show advantages of removing the right ovarian teratoma in pregnant women with vNOTES LAOC procedures.<br><br>Conclusion<br>This surgery allows us to have more consideration on vNOTES LAOC during pregnancy. When limitation occured in abdomen with enlarged uterus under laparoscopy, application of vNOTES may be considered. Advances in technology have enhanced the feasibility of vNOTES as a treatment option for gynecologic surgeries. Further studies are needed to clarify the application of the vNOTES for pregnant women in gynecologic surgeries. |

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| 稿件編號：V14<br>臨時稿件編號：<br>0647 | 腹腔鏡手動直腸圓盤狀切除及重建以治療深度子宮內膜異位症的實用技巧<br>Tips and tricks in laparoscopic manual rectal discoid resection and reconstruction to treat advanced deep infiltrating endometriosis<br><br>李佾潔[1] 孫仲賢[1] 方俊能[1] 莊國泰[1]<br>高雄四季台安醫院[1] |
| 論文發表方式：<br>影片展示<br><br>論文歸類：<br>內視鏡 | Background<br>The posterior compartment of the pelvis is frequently involved in deep infiltrating endometriosis (DIE), wherein the rectum is the most common site. Laparoscopic discoid resection has been considered an option to achieve complete removal of rectal endometriotic nodules. Such surgical procedure can be complicated in regards of maximal lesion removal and surefire rectal reconstruction to prevent the possible bowel complications.<br><br>Patient and Methods<br>We herein present our surgical videos of laparoscopic manual rectal discoid resection and reconstruction in a DIE patient with multiple previous endometriosis surgery.<br><br>Results<br>Due to the complexity of the bowel resection and repair, the excision of the endometriotic lesions at this area should be preceded by comprehensive restoration of the pelvic anatomy and adhesiolysis to free the whole affected rectal section. Laparoscopic excision at this area to achieve maximal lesion removal requires accurate positioning , complete mobilization of the rectum, visual and tactile discrimination of the target lesion from normal rectal tissue. A combination of gas-tight and water-tight sutures is then mandatory in multiple layers succeedingly to close the rectal defect.<br><br>Conclusions<br>Laparoscopic manual discoid resection and repair of the rectal DIE is practical to treat advanced rectal endometriosis to assure maximal lesion removal. Full restoration of the anatomy and adjunctive measures to prevent inadvertent complications are the cornerstones to obtain optimal outcomes. |

台灣婦產科醫學會 111 年度年會暨學術研討會

論文摘要

稿件編號：OE1

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0525

# 從傳統的腹腔鏡手術到經陰道自然孔洞內視鏡手術 (vNOTES)，它是否是進行卵巢畸胎瘤摘除術的更好方法？

# From Conventional Laparoscopy to Transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES), is it a Better Way to Perform Enucleation of Ovarian Teratoma?

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論文發表方式：
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論文歸類：
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ABSTRACT

Objective: To compare the pros and cons of conventional single-port laparoscopy and transvaginal natural orifice transluminal endoscopic surgery (vNOTES) approaches for enucleation of benign ovarian teratoma.

Materials and Methods:
We will demonstrate our videos comparing conventional single-port laparoscopy and vNOTES approaches for enucleation of benign ovarian teratoma.

Results:
Comparing with conventional laparoscopic enucleation of ovarian teratoma, vNOTES approach is easy to combine with manual dissection and repair. Hemostasis can be achieved easily by primary suture with the conventional surgical instruments. In additional, spillage of tumor content is restricted in cul-de-sac which is easier to clean up. During post-operation course, vNOTES approach showed advantages of no abdominal wound, which contributes painless and rapid recovery.

Conclusions:
Transvaginal Natural Orifice Transluminal Endoscopic Surgery (vNOTES) for enucleation of benign ovarian teratoma is feasible and it can be a preferable surgical route for both patients and surgeons.

台灣婦產科醫學會 111 年度年會暨學術研討會

論文摘要

稿件編號：OE2

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0519

# 經陰道自然孔洞內視鏡手術與經肚臍單孔腹腔鏡手術應用於卵巢囊腫切除之比較

# Comparison of vaginal natural orifice transluminal endoscopic surgery (vNOTES) versus transumbilical laparoendoscopic single-site surgery (LESS) in ovarian cystectomy

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論文發表方式：
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Objective
To compare the outcomes of ovarian cystectomy performed by vaginal natural orifice transluminal endoscopic surgery (vNOTES) versus transumbilical laparoendoscopic single-site surgery (LESS).

Material and methods
We retrospectively analyzed the data of all patients in our hospital who had undergone vNOTES and LESS ovarian cystectomy due to 'benign ovarian cystic lesion' from July, 2016 to September, 2021 (ICD10 N83.2). Demographic data were collected. Primary outcome was the conversion rate. Secondary outcome was duration of surgery(minutes), duration of hospitalization(days), estimated blood loss(mL), maximum body temperature within 48h after operation, timing of maximum body temperature(hours), maximum VAS score within 48h after operation, and timing of maximum VAS score(hours). Statistical analysis was using SPSS software and $p<0.05$ was considered statistically significant.

Results
Total 254 patients were screened, and 21 patients and 28 patients were recruited in the vNOTES and LESS group, respectively. Compared with the vNOTES group, the LESS group has larger diameter of cyst(mm) [6.14±2.42 vs. 4.69±1.29, p=0.016], more endometriotic cysts [15(53.6%) vs. 2(9.5%), p=0.001] and pelvic adhesions requiring adhesiolysis [16(57.1%) vs. 4(19.0%), p=0.007]. Otherwise there was no other difference between two groups at baseline. The conversion rate showed no significant difference between the two groups. But the LESS group had 4 patients (14.3%) converted to conventional laparoscopy, whereas there was no conversion in the vNOTES group. The secondary outcomes demonstrated a shorter duration of surgery(70.14±27.30 min vs. 101.29±40.32 min, p=0.004) and lower estimated blood loss (64.29±39.19 ml vs. 121.43±109.23 ml, p=0.027) in the vNOTES group. There were no other statistical significant differences between the two groups regarding secondary outcomes, including duration of hospitalization(days), maximum body temperature within 48h after operation, timing of maximum body temperature(hours), maximum VAS score within 48h after operation, and timing of maximum VAS score(hours). However, there was a trend for more adverse events in the vNOTES group.

Conclusion
The outcome of vNOTES was comparable to LESS regarding ovarian cystectomy.

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0507

# 單孔腹腔鏡子宮頸韌帶保留子宮切除手術: 一百個案的經驗分享
# Cervical Ligament Sparing Hysterectomy: Experience of 100 cases

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論文發表方式：
口頭報告

論文歸類：
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Aims and objective
To report the experiences and clinical outcomes of the two-phase laparo-endoscopic single-site cervical ligament-sparing hysterectomy (LESS-CLSH).

Methods and material
A review on 100 cases of the two-phase laparoendoscopic single-site cervical ligament-sparing hysterectomy was performed since the first case in 2014. LESS-CLSH composed of two phases: (1) laparoscopic subtotal hysterectomy and internal os conization of cervix, Specimen removed by Contained Manual Morcellation with a tissue pouch; (2)Transvaginal external os conization of cervix. A comprehensive review on the surgical clinical outcomes will be reported. The histopathologic adequacy of cervical specimens whether it contains squamous-columnar junction was examined by experienced pathologist. The patients were followed up for the event of cyclic vaginal spotting or vaginitis those need medication treatment. The pap smears after LESS-CLSH were also analysed.

Results
The mean surgical time was 100.2 ± 10.5 min (including the internal os conization and contained manual morcellation time), and the mean blood loss was 180.5 ± 15.3 mL. The VAS pain scores at 0–4, 24, and 48 h after surgery were 7.1 ± 1.9, 3.2 ± 1.6, and 1.3 ± 1.5, respectively. A ratio of 5% women had major blood loss (1000 ± 115 cc), no ureter or bladder injury, no residual stump or wound infection were noted. In the initial 40 cases, delayed onset vaginal bleeding on the 7th–14th day postoperation was observed in 11% women. Asymptomatic mucus accumulation (ECMA) in the endocervical canal was also observed in 11% women. After a modification on the cervical suturing, postoperative vaginal bleeding and asymptomatic ECMA were reduced to 6% and 2%, respectively. The squamous columnar junction of cervix can be found in all specimen of external os conization cervix. After two years follow up, no patient has cyclic vaginal spotting and no cervical neoplasia was found by pap smear report. Of them 64% revealed normal limit and 26% inflammation without atypia or neoplasia in the first year Pap smear of the all the patients showed normal limit in the second year. No patient had vaginitis in the first year and only 2% of them had vaginitis that need vaginal suppository treatment in the second year follow up. Internal and external os conization during LESS-CLSH confers adequate removal of endocervical glands and squamous columnar junction that resulted in seldom vaginitis and no cyclic vaginal spotting and no cervical neoplasia after a two years follow-up.

Conclusion
LESS-CLSH is a minimally invasive, safe and feasible approach of hysterectomy that can reduce trauma on the pelvic floor and eliminate the occurrence of cervical neoplasia and cyclic vaginal bleeding. Base on the favorable postoperative outcomes, it may be a better approach of hysterectomy.

Keywords: Hysterectomy, cervical ligament sparing hysterectomy

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0504

# 子宮肌瘤於海扶治療後的手術再介入
# Surgical Re-Intervention for uterine leiomyomas after High Intensity Focused Ultrasound

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Objective
Issues regarding the abuse of HIFU treatment and consequent complications were raised. However, there is little information regarding the indications for surgery or re-intervention after HIFU treatment or even HIFU failure. The purpose of this study was to evaluate the clinical characteristics of patients who underwent surgery for treatment of leiomyoma after HIFU.

Method
From April 2015 to June 2020, a total of 557 patients with myomas were included for treatment using Haifu JC Focused Ultrasound Tumor Therapeutic System (Chongqing, China) in Kaohsiung Medical University Hospital. After follow-up time of 6-60 months, patients who underwent an operative procedure including hysterectomy, myomectomy or hysteroscopy were selected. A total of 28 patients were included in this study. We investigated the reason for surgical re-intervention. We retrospectively reviewed the medical records for total treatment time during HIFU, sonification time, average sonification power, and adverse reaction during treatment. The volume change of uterus and leiomyoma were calculated with MRI before and 3 months after treatment. The evaluation of symptoms improvement was based on the clinical visit. If the operative procedure was done at Kaohsiung Medical University Hospital, the weight of the mass, and the histopathologic findings were assessed.

Results
After follow-up time of 12-60 months, a total of 28 patients were analyzed. The surgical re-intervention rate for HIFU-treated leiomyoma was 5.0%. The operations were performed for several reasons. Eight patients had poor reduction of myoma size, 10 patients complained of persistent or aggravation of symptoms, one had leukorrhea and delivering myoma, 2 patients had newly developed vaginal bleeding, 2 patients had newly found pelvic tumor (one ovarian tumor and one leiomyoma), 2 patients had suspect cancer under MRI, and 3 patients had planned hysteroscopy. The median interval between HIFU and surgery was 14.65 months. If planned hysteroscopy is not included, the unexpected surgical re-intervention rate will be 4.49%. One patient was found to have endometrial cancer incidentally by the hysteroscopy, and staging surgery was performed. Among the 4 patients who had undergone hysterectomy, one came out to be leiomyosarcoma.

Conclusions:
There are several factors to consider when selecting uterine fibroids for treatment with HIFU, including fibroid size, numbers, and MRI T2 signal intensity. The most critical factor for re-intervention is the existence of uterine fibroids and the relevance to the patient’s symptoms. Submucosal fibroids that project into the endometrial cavity may cause persistent uterine bleeding or even delivering myoma and requires hysteroscopic intervention after HIFU. The possibility of malignancy should always be alerted for increasing size of leiomyoma after HIFU ablation.

台灣婦產科醫學會 111 年度年會暨學術研討會

論文摘要

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0360

# 以全新肌瘤指數協助選擇最適微創肌瘤切除手術平台

# Novel Myoma Score to Aid Selection of the Optimal Minimally Invasive Surgery Platform for Myectomy

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[Background] Minimally invasive myomectomy has evolved over the recent years, including single-incision laparoscopic surgery (SILS), 2-port laparoscopic surgery (TPA), conventional laparoscopic surgery (CL), and robotic-assisted myomectomy (RM). However, the indications and benefits of each surgical platform remain undefined. [Materials and Methods] The study evaluated patients receiving minimally invasive myomectomy within a single tertiary teaching hospital between 2015 and 2019. Per baseline factors, a myoma score was developed and used to compare groups. The efficacy of the score was evaluated in comparison to the results of previous studies. [Results] 322 patients underwent minimally invasive myomectomy by experienced operators (35, 155, 48, and 84 patients underwent SILS, TPA, CL, and RM, respectively). Operation time differed significantly between groups (SILS, 141.14 ± 59.99; TPA, 104.31 ± 48.5; CL, 125.96 ± 37.3; RM, 184.11 ± 59.06 minutes; all $p < 0.01$), and the myoma burden was the greatest in the RM group, including size, number, weight, and volume. Among the outcomes and strength of correlation, a myoma score was built with 3 tiers applied to myoma size and number, and 2 tiers for BMI and FIGO subclassification. The score showed effective in determining myoma difficulty and relative operation time internally and most of the published literature externally. [Conclusion] The devised myoma score aids in appropriate preoperative evaluation and referral to specialists. SILS is the method of choice when considering cosmetic outcome. TPA is easy to perform, easily available, and cost-effective. For difficult myomas, CL remains of critical value; in cases when CL is not considered, RM may be preferred if cost is agreeable.