APAGE Symposium

PROGRAM Co-CHAIRS
Prof. Chyi-Long Lee & Prof. Mitsuru Shiota

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APAGE Symposium

Professor Chyi-Long Lee and Professor Mitsuru Shiota, Co-Chairs

Faculty: Dr. Preshant Mangeshikar, Dr. Hsuan Su

Course Description

Natural orifice transluminal endoscopic surgery (NOTES) uses the natural orifices of human body (ex, mouth, anus, etc.) as port of laparoscopy to achieve a “scarless” abdominal surgery. Though the techniques of transcolonic or transesophageal accesses have also been developed, the transvaginal access is the most frequently used and suitable for gynecologists. The first course, Transvaginal NOTES in Adnexal Procedures, provides its technical details and feasibility evaluation.

Hysterectomy is one of the most commonly performed surgical procedures. Total laparoscopic hysterectomy (TLH) is characterized by performing all the procedures and disconnecting the uterus from pelvic floor with solely abdomen approach. The second course, Demystifying the Total Laparoscopic Hysterectomy, provides the technical details, points out the key principle of operative safety, and offers the tips and tricks of achieving a successful TLH.

Learning Objectives

At the conclusion of this course, the participant will be able to: 1) Illustrate the techniques of both procedures; 2) recognize the advantages and limitations of both procedures; and 3) select appropriate patients to perform the procedures.

Course Outline

1:10 Welcome, Introductions and Course Overview M. Shiota, C. Lee

1:15 Transvaginal Natural-Orifice Transluminal Endoscopic Surgery (NOTES) in Adnexal Procedures C. Lee, H. Su

1:40 Demystifying the Total Laparoscopic Hysterectomy P. Mangeshikar

2:05 Questions & Answers All Faculty

2:10 Adjourn
Transvaginal Natural-Orifice Transluminal Endoscopic Surgery (NOTES) in Adnexal Procedures

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OBJECTIVE

- To explain the retinal of NOTES procedure in gynecologic minimal invasive surgery
- Share the experience of Chang Gung Memorial hospital

Surgical procedure

NOTES

What is NOTES

Natural-Orifice Transluminal Endoscopic Surgery

No financial relationships to disclose
What is NOTES

In Gynecology…
Endoscopic surgery through *Vagina*

First NOTES like procedure

Culdocopy: Von Ott D. 1902

Culdoscopy

- Diagnostic & Operative procedure

Culdocopy - Criticized

- Restricted visualization
- Limited operative capabilities
- Risk of infection

Transvaginal hydrolaparoscopy

Fertility evaluation

Vaginal approach

Common skill for gynecologists

Limitation for gynecological procedures
- Too deep to identify the target
- Too close to proceed the procedure

Experience of NOTES
Chang Gung Memorial Hospital, Linkou, Taiwan

2007 culdoscopy

Uterus

Hydrosalpinx, salpingectomy
2 cases

Limitation
Poor visual distance
Port unstable

2010 Vaginal glove port


Karl Storz 0 or 30 degree
5 mm or 10 mm telescope
Experience of NOTES
Chang Gung Memorial Hospital, Linkou, Taiwan

2010 Vaginal endoscopic surgery, VES

May 2010 First NOTES hysterectomy

Aug 2010 First NOTES tubal sterilization

- Transvaginal natural orifice transluminal endoscopic surgery (NOTES): feasibility of an innovative approach
  - Su H. et al

- Transvaginal natural orifice transluminal endoscopic surgery (NOTES): in adnexal procedures
  - Lee CL, et al

Experience of NOTES
Chang Gung Memorial Hospital, Linkou, Taiwan

2010 Vaginal endoscopic surgery, VES
Experience of NOTES
Chang Gung Memorial Hospital, Linkou, Taiwan

2010 Vaginal endoscopic surgery, VES

Create an adequate visual distance, and made vaginal surgery a reality
Bigger port diameter. Let triangulation become possible
Rigid scope and instruments.

The result is ....
Experience of NOTES
Chang Gung Memorial Hospital, Linkou, Taiwan

2010 transvaginal endoscopic surgery
Right endometrioma, before

Video of NOTES cystectomy

Advantage
Following embryologic anatomy
Less pain
Faster recover
Scarless

Limitation
Can not inspect whole pelvis, endometriosis ?
Loss of triangulation
Instruments limitation
Anatomy re-establish
Experience of NOTES

Chang Gung Memorial Hospital, Linkou, Taiwan

Indication of NOTES adnexal surgery

- Teratoma
- Tubal sterilization
- Ectopic pregnancy
- Benign adnexal neoplasm
- Endometriosis?

NOTES adnexal surgery

Several months later

NOTES adnexal surgery

Conclusion

- Transvaginal endoscopic surgery for adnexal procedures is an alternative method with a well patient selection
- Surgical outcome should be evaluated
- The limitation of the procedure should be explored

REFERENCES

Demystifying the Total Laparoscopic Hysterectomy

Prashant Mangeshikar
Mumbai INDIA

AAGL 41st Global Congress of Minimally Invasive Gynecology, Las Vegas, November 2012

Understanding the Difficult TLH

• Difficult Vaginal Access
• Low mobility of the Uterus
• Severe Endometriosis
• Adnexal masses (not suspicious)
• Adhesions (from previous laparotomy)
• Large Size uteri

The Difficult TLH

• Knowledge of Anatomy
• Knowledge of Instrumentation
• Knowledge of Technique
• Knowledge of Difficulties
• Knowledge of possible Complications
• Knowledge of Limits

Total Laparoscopic Hysterectomy Instrumentation

Trocar Cannula
Short Self Retaining Valve: Silicon and “suture friendly”
Scissors
Ultrasonic Energy
ESU: Monopolar and Bipolar
Grasping Forceps
Mangeshikar Knot Pusher
Koh Needle Holders: Right and Left versions

The Difficult TLH made Easy

• Technique easily reproducible
• Reusable Instruments
• Energy Sources
• Suturing Skills

Total Laparoscopic Hysterectomy Instrumentation

• EndoTIP: Safe Visual Abdominal Entry of Primary Portal
• Uterine Manipulation: Mangeshikar Uterine Mobilizar
• Telescope:
  • 0 and 30 degree Laparoscope
  • Bariatric Telescope: Extra 10 cm long
TLH for the Large Uterus

- Approach: Primary Portal
- Lee Huang Point

The Difficult TLH made Easy

- Visual Abdominal Entry: EndoTIP Cannula
- High Pressure Entry: Pneumoperitoneal Pressure @ 20 mms. Hg. or more

TLH for the Large Uterus

- Accessory Portals: Number: 3 or 4
- Koh Point: Rt. & Lt
- 5 mms. self retaining Hunt Reich Cannulas with Silicon valves

TLH for the Large Uterus

- Approach: 10 mms. Telescope
- Degree: 0 and 30
- Longer Length: Bariatric
MANGESHIKAR UTERINE MOBILIZAR
- Mobilize the uterus in multi directions
- Present the Vaginal Fornices
- Maintain Pneumoperitoneum

TLH for the Large Uterus
Mangeshikar Uterine Mobilizar

Vaginal Delineating Tube
- Medical Grade Polypropylene Tube OD 30 ~ 40 mm
- Lifts Vagina Upwards
- Displaces Ureter, Bladder and Rectum outside surgical field
- Uterine vessels well delineated against the rim

The Difficult TLH made Easy Energy Sources
- Monopolar Energy: Pure Cut 80W
- Bipolar Energy: 40 W
- Reusable RoBi (Robust Bipolar) Forceps
- Harmonic Scalpel

The Difficult TLH
- Is Robotic Hysterectomy the Answer?
- Robots are for the Handicapped!!!
  Charles Koh
The Difficult TLH

- Does LSK have LIMITS?
- The Surgeon himself!

- Remember:
  - The MAGIC is in the MAGICIAN
  - and
  - NOT in the WAND

Faculty Disclosure
No Financial Relationships to Disclose

Video

NO QUILLS AND NO BARBS USED
NO ROBOT WAS USED DURING THIS SURGERY
ONLY SURGICAL SKILLS AND DEXTERITY
CULTURAL AND LINGUISTIC COMPETENCY

Governor Arnold Schwarzenegger signed into law AB 1195 (eff. 7/1/06) requiring local CME providers, such as the AAGL, to assist in enhancing the cultural and linguistic competency of California’s physicians (researchers and doctors without patient contact are exempt). This mandate follows the federal Civil Rights Act of 1964, Executive Order 13166 (2000) and the Dymally-Alatorre Bilingual Services Act (1973), all of which recognize, as confirmed by the US Census Bureau, that substantial numbers of patients possess limited English proficiency (LEP).

California Business & Professions Code §2190.1(c)(3) requires a review and explanation of the laws identified above so as to fulfill AAGL’s obligations pursuant to California law. Additional guidance is provided by the Institute for Medical Quality at http://www.imq.org

Title VI of the Civil Rights Act of 1964 prohibits recipients of federal financial assistance from discriminating against or otherwise excluding individuals on the basis of race, color, or national origin in any of their activities. In 1974, the US Supreme Court recognized LEP individuals as potential victims of national origin discrimination. In all situations, federal agencies are required to assess the number or proportion of LEP individuals in the eligible service population, the frequency with which they come into contact with the program, the importance of the services, and the resources available to the recipient, including the mix of oral and written language services. Additional details may be found in the Department of Justice Policy Guidance Document: Enforcement of Title VI of the Civil Rights Act of 1964 http://www.usdoj.gov/crt/cor/pubs.htm.

Executive Order 13166,”Improving Access to Services for Persons with Limited English Proficiency”, signed by the President on August 11, 2000 http://www.usdoj.gov/crt/cor/13166.htm was the genesis of the Guidance Document mentioned above. The Executive Order requires all federal agencies, including those which provide federal financial assistance, to examine the services they provide, identify any need for services to LEP individuals, and develop and implement a system to provide those services so LEP persons can have meaningful access.

Dymally-Alatorre Bilingual Services Act (California Government Code §7290 et seq.) requires every California state agency which either provides information to, or has contact with, the public to provide bilingual interpreters as well as translated materials explaining those services whenever the local agency serves LEP members of a group whose numbers exceed 5% of the general population.

If you add staff to assist with LEP patients, confirm their translation skills, not just their language skills. A 2007 Northern California study from Sutter Health confirmed that being bilingual does not guarantee competence as a medical interpreter. http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2078538.