Late Consequences of Laparoscopic Supracervical Hysterectomy: Prevention and Management

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Surgical Tutorial 2:
Late Consequences of Laparoscopic Supracervical Hysterectomy:
Prevention and Management

Faculty: Thomas L. Lyons and Jason A. Abbott
Moderator: Anthony A. Luciano

Course Description

Since its inception in 1990, LSH has developed as an effective alternative to total abdominal hysterectomy for patients with appropriate pathology requiring uterine extirpation. Over the years some complications specific to LSH have been identified. This course will attempt to identify these issues and to provide the practitioner with methods of both preventing and treating these problems. Most of the issues can be addressed with minor surgical technique adjustments and some of the potential problems can be identified preoperatively and avoided with that assessment. The course should allow the practitioner to exclude from the LSH procedure those patients who are not appropriate for this technique as well as safely and efficiently addressing problems that may arise.

Learning Objectives

At the conclusion of this course, the participant will be able to: 1) Identify the short and long term consequences of the LSH procedure; 2) develop techniques and pathways to address these consequences; 3) assess which patients should be included/excluded from the LSH procedure; 4) provide patients with accurate information regarding these consequences; and 5) develop a method of outcomes analysis in order to assess patient performance.
PLANNER DISCLOSURE
The following members of AAGL have been involved in the educational planning of this workshop and have no conflict of interest to disclose (in alphabetical order by last name).
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FACULTY DISCLOSURE
The following have agreed to provide verbal disclosure of their relationships prior to their presentations. They have also agreed to support their presentations and clinical recommendations with the “best available evidence” from medical literature (in alphabetical order by last name).
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Asterisk (*) denotes no financial relationships to disclose.
Laparoscopic Supracervical Hysterectomy – Fundamental technique

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Learning Objectives

- Evidence based review for LSH
- Review techniques
- Difficult cases: Tips and teaching

Patient Expectations and education

Correct indications imperative

Surgeon skills: Available equipment

Choice of modalities

Correct indications imperative

600,000 hyst/year in the USA

Discussion with patient
Indications (myomas, endometriosis)
Outcomes from SLH
Short term, long term
Specific risks – good and bad
Higher risk of urinary Tract injury
Cosmetic, shorter hospital Stay, fewer infections

Clinical outcomes
Short term complications
Long term complications
Surgical technique
Long term issues

Data regarding SLH

Less febrile morbidity
haematoma formation with SLH

1.5-2.5% risk complication
From SLH series:
Bladder injuries 0.25-0.75%
Surgical injury 0.19%
Bladder and bowel function not impaired and may be symptomatic improvement

Complications data is largely from open hysterectomy

Cyclic bleeding in 4-20%
Ectopic pregnancy >SLH cf TLM

Prolapse does not appear prevented or reduced by SLH (data issues)

Sexual function does not appear altered with SLH or TLM – data are varied in this regard

Long term problems
Cervical stump: Necrosis Cancer
Morcellation: endometriosis
Morcellation: leiomyomatosis

Theoretically Less risk to LUT
Skill in cervical closure removal of corpus
HW1  Meeting Sherin to clarify how many in the single injection group were responders and how many were non-responders

Haryun, 11/3/2010
Supracervical Laparoscopic Hysterectomy
Data are generally not high-quality. Balance between risks and benefits. Marginally quicker recovery. For right indication, good procedure. Patient expectations paramount.

Balance between risks and benefits.
Marginally quicker recovery.
For right indication, good procedure.
Patient expectations paramount.

Instrumentation
Uterine manipulator
Cervical collar/cuff
Adds degrees of freedom

The cervix
Device
Scissors/hook
Securing the stump

Have a pre-operative plan
Assess the abdomen and pelvis: Revise plan if necessary
As per TLH until cervix – Ureter paranoia is healthy. For the patient!
What to do with the cervix: Make sure your skills can deal with variation
Review entire pelvis and abdomen: Consider cytology (tuberculosis) Revise your operative plan

Equipment choice:
1. Basic equipment to suture
2. Energy sources
3. Tools for amputation
4. Tools for specimen removal
5. Consider costs

Have a pre-operative plan
Assess the abdomen and pelvis: Revise plan if necessary
As per TLH until cervix – Ureter paranoia is healthy. For the patient!
What to do with the cervix: Make sure your skills can deal with variation
Review entire pelvis and abdomen: Consider cytology (tuberculosis) Revise your operative plan

1. Patient details
2. Surgical details
3. Investigation results
4. Admission planning
5. Learning goals
6. Potential surgical issues
7. Detailed surgical plan
8. Details
Practice, practice, practice

The difficult LSH

- Normalise the anatomy
- Consider order of procedures
- Secure placement
- Don’t be under pressure

- The issues could be: size of pathology (myomas, adenomyosis)
- Mobility of structures
- Ureter, ureter, ureter
- Adhesions, endometriosis
- Securing the uterine artery
- Consider taking it laterally
- Selective uterine artery ligation

Morcellation

- Good assistant
- Methylene blue
- Don’t be afraid to...
- Stop and evaluate other structures
- End the tissue line
- Move a breather
- Take it slowly (guard down at end of case)

Devices to help

- Nothing beats ability to suture
- Consider sealing/cutting devices
- Practice in easy cases
- Adds to cost, may reduce time
Tidbits and tricks

- Cervical coring
  - bleeding may still occur
  - no change to screening

The difficult LSH

- Prepare
- Anatomy
- Flexibility
- Tools
- Predict
Late consequences of laparoscopic supracervical hysterectomy:
Prevention and Management

Thomas L. Lyons MS, MD, FACOG
Surgical Tutorial Two
41st AAGL Global Congress
Las Vegas 2012

Objectives

• Identify late consequences of LSH.
• Manage and treat late consequences of LSH.
• Use defined techniques and technologies to avoid these morbidities.

Late consequences of LSH

• PCB persistent cyclic bleeding.
• Cervical prolapse
• Persistent pain
• Abnormal PAP
• Implanted morcellated tissue
• Sexual function

PCB – persistent cyclic bleeding

• This is purely a technical issue.
  — Coring the cervix beginning at the internal os
• There is no method which would achieve 0% bleeding but amputation at or below the internal os will assure the operator of a <1% rate of PCB.
• The 20% rate quoted by Ghomi (JMIG 2005) is significantly higher than seen the largest studies with long term follow up (Lyons JMIG 2007, Bojahr JMIG 2006, Donnez BJOG 2009)

Cervical Prolapse

• Studies reveal the most common surgery post supracervical hysterectomy is trachelectomy – most often due to symptomatic prolapse.(Mayo Clinic Annals 1993)
• If the patient is retroverted with a shortened anterior vaginal wall (<7 cm) we would recommend a total or intra-fascial hysterectomy.

Disclosure

• Grants/Research Support: Gyrus ACMI (Olympus)
• Consultant: Gyrus ACMI (Olympus), Ethicon Endo-Surgery, SurgiQuest, Ethicon Women's Health & Urology
• Other: Royalties - Gyrus ACMI (Olympus)
**Persistent Pain**

- LSH is not recommended in patients with significant retrocervical or cervical endometriosis or in patients with cervical point tenderness on digital exam.
- Trachelectomy with removal of all endometriosis is the recommended solution to this problem. There are studies which do not show pathologic confirmation of the presence of endo or adenomyotic changes that still suggest that trachelectomy should be employed in these patients. (Nezhat, Fert & Steril 2001)

**Abnormal PAP**

- The incidence of PAP abnormality in a cervix S/P supracervical hysterectomy is .11% whereas the incidence of this abnormality in the vaginal vault S/P total hyst is .13%. (Novak 1975, Frumholtz JMIG 2010)
- Given the absence of high risk HPV this would seem to be a non-issue.
- If PAP abnormalities arise use standard methods of evaluation. Be aware that if you have thoroughly cored the cervix at LSH the endocervix may not be present and therefore those cells will not be present on PAP or culpo.

**Amputated morcellated tissue**

- Large tissue fragments should all be retrieved. All morcellation devices and techniques have their issues.
  - Hand morcellators – time and energy
  - Mechanical devices – expensive and throw tissue everywhere
  - Bipolar morcellator – Smoke can be a factor but technique can fix it.
  - Percutaneous extraction – simple, cheap, fast effective.
- Be sure to rinse the sites where tissue was extracted to prevent seeding.
- Numerous studies have evaluated this factor and still recommend a minimally invasive approach to uterine extirpation. (Sepilian ObGyn 2003, Decenzo Ob Gyn 2004, Hilger Ob Gyn 2006, Larrain JMIG 2010, Della Badia JMIG 2010)

**Sexual Function**

- Difficult to assess but there are now some level I studies in this area. (Engh Acta Ob Gyn 2010)
- However, it still remains true that the best predictor of sexual function post hysterectomy is sexual function pre-hysterectomy.
- Early resumption of normal relations without pain does play a role in short term function. (Lyons JMIG 2007)

**Conclusions**

- These late consequences can be minimized predominantly through technical modifications.
- Laparoscopic applications to hysterectomy have proven to be a distinct improvement on clinical outcomes for the majority of patients warranting this approach. (ACOG technical bulletin 2004)
- LSH is a simple, low morbidity alternative to consider for these patients.
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](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](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](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.

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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](http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=2078538).