

The Pipeline is a publication of the Urology Nurses of Canada. The Pipeline is published each spring and fall for UNC members and sponsors and is also located at www.unc.org.

The Pipeline is looking for articles for publication about new initiatives in urology, latest technology, clinical research and evaluation, local chapter activities, patient and community resources.

**Deadline for next issue:
April 2004**

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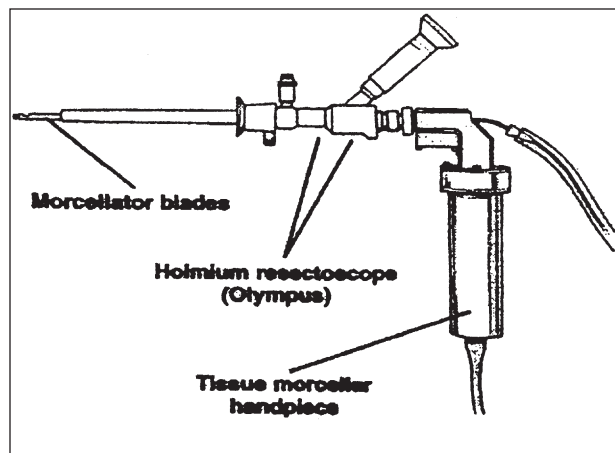
Laser Surgery of the Prostate

Carol-Anne Lee, RN, BN

The basic principle of the laser is that photons are emitted from an atom stimulated by an external energy source. The word laser stands for light amplification stimulated emission radiation. Lasers are named after the laser medium generating a specific wavelength.

The first application was in 1960 using the continuous ruby laser for calculi. It generated too much heat. The solution for overheating was the pulsed-laser system. In 1990 the **Nd:YAG** (neodymium-yttrium-aluminium-garnet) with a wavelength of 1064 nm was first used. The light energy was weakly absorbed and easily scattered by tissue resulting in tissue heating and a wide zone of thermal injury. It gave excellent coagulation but no cutting properties. Drawbacks included prolonged catheter time, delayed clinical improvement and severe irritative symptoms that persisted for weeks following the procedure.

The **Ho:YAG** (Holmium:yttrium-aluminium-aluminium garnet) laser with a wavelength of 2140nm has been used since 1993. The light travels down an end firing quartz laser fiber and the energy is absorbed superficially to a depth of 0.4mm. This causes thermal damage (vaporization) and necrosis. When the tissue absorbs the energy of the holmium wavelength, the water content in the tissue is rapidly heated and converted to vapor subsequently vaporizing the tissue. Associated blood vessels are also coagulated simultaneously.



Continued on page 2

The benefits of the laser are the precise cutting abilities (on higher settings 2 Joules x 50 pulses/sec = 100 watts), the good level of hemostasis (on lower settings 1.5 – 2.0 Joules x 30 – 40 pulses/sec = 45 – 80 watts), the virtually bloodless surgical field and the immediate relief of symptoms.

There are 3 types of laser surgery of the prostate.

Laser TUIP (transurethral incision of the prostate)

This is a "sculpturing" of the prostatic urethra to create an unobstructed urethra

HoLRP (holmium laser resection of the prostate)

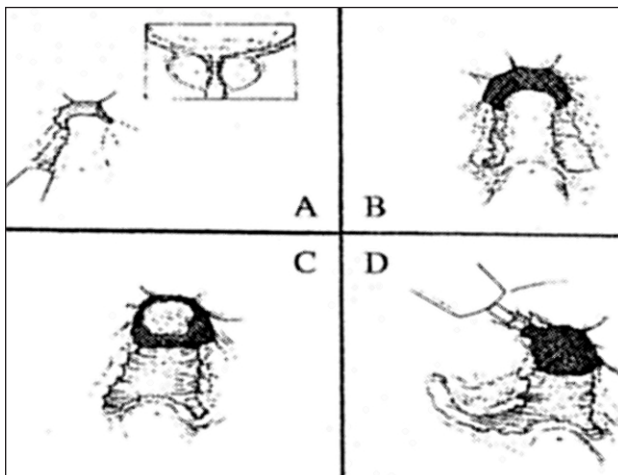
Large pieces of prostate tissue are resected and removed with a modified resectoscope and loop (crown) .

HoLEP (holmium laser enucleation of the prostate)

This is a two-step procedure. The median and lateral lobes of prostate tissue are removed (enucleated) intact and a mechanical morcellator is used to facilitate removal of the prostate tissue via the bladder.

Equipment

- a) 80 – 100 watt laser source
 - a. ideal setting for cutting is 2 Joules at 40 – 50 Hz
 - b. lower settings for coagulation/proximity to the sphincter 2 Joules at 40Hz or 1.5 Joules at 30 Hz
- b) 26 French continuous flow rectoscope with modified inner sheath for laser fiber tip.
- c) 550um end firing quartz laser fiber
 - a. the end should be stripped before each use.
 - b. 20 – 30 procedures are possible per fiber.
 - c. flash sterilize between cases.
- d) 7 French stabilizing laser catheter
- e) Normal saline irrigation solution
- f) Video monitoring system
- g) Tissue morcellator system to be used with indirect nephroscope that includes an adaptor attaching it to the outer rectoscope sheath.



HoLEP Technique

- A. Initial right median lobe incision, lateral to lobe (7 o'clock position)
- B. Completed median lobe incisions (5 and 7 o'clock positions)
- C. Enucleated median lobe floating into the bladder
- D. Right lateral lobe enucleation with right inferior apical dissection completed underneath right lateral lobe.

Advantages of Holmium Laser Surgery.

- a) There is no limit to size. This type of surgery is suitable for large prostates (200gms)
- b) It is suitable for patients with altered coagulation profiles, either therapeutic or pathological etiologies.

- c) The laser has a superior coagulative ability. It seals tissue planes as the operation progresses and this results in minimal blood loss.
- d) It avoids the danger of systemic fluid absorption (uses N/S versus Glycine 1.5%) and eliminates the risk of developing TURP syndrome. A diuretic (Lasix) is given Q1h to avoid fluid overload of Normal Saline.
- e) There is a reduced/eliminated need for bladder irrigation
- f) Laser gives the ability to retrieve tissue for histological examination from morcellation technique despite the fact that 50 – 60% of resected tissue is vaporized.
- g) There is a reduction in transfusion requirement (report of 1/1000 by Gilling et al. 1996)
- h) There is a shorter post-operative catheterization period (< 24 hours)
- i) The length of hospital stay is shorter. (discharged the following day)
- j) There is a hastened return to normal activity

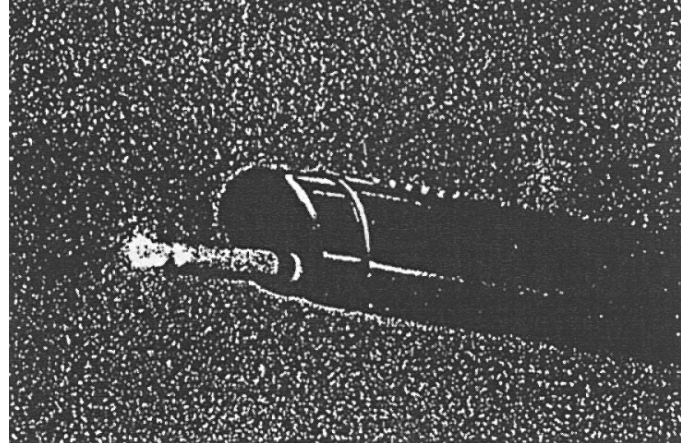
Disadvantages of Holmium Laser Surgery

- a) There are high initial start-up costs
 - a. a Coherent Versipulse Power Suite delivers up to 100watts and costs \$US 200,000.
 - b. laser fibers are \$1000 each, but can be flash sterilized and used for approximately 15 – 20 cases
- b) Surgeons find there is a steep learning curve. There is difficulty of working on three planes. The previous resection techniques teach to resect toward the sphincter while enucleation teaches to resect toward the bladder neck.
- c) There is a longer procedure time (approximately 1 gram/minute – this includes enucleation and morcellation time)

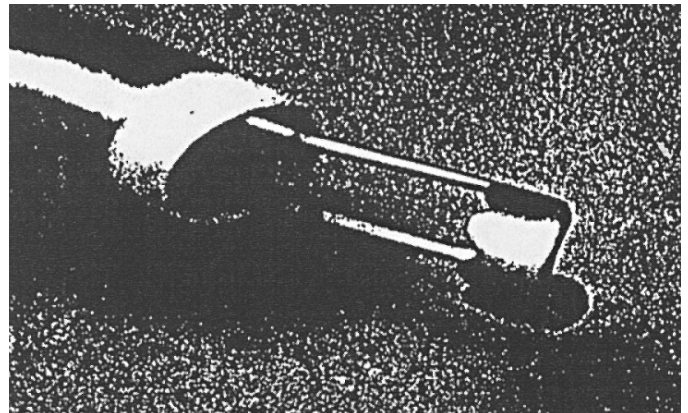
HoLEP is a safe, effective and well tolerated surgical option for men with benign prostatic hypertrophy. It is associated with minimal morbidity and a short length of hospital stay. There is a need to ensure that surgeons/nurses have adequate

experience in transurethral techniques and previous experience in endoscopic/laser surgery.

Additional high quality randomized trials would strengthen the evidence base for HoLEP.



Continuous-flow resectoscope with modification to stabilize laser fiber.



Modified resectoscope for extraction of smaller prostate fragments from bladder.

New Brunswick Chapter

Urology Nurses of Canada is very pleased to announce the formation of a new chapter in Saint John, New Brunswick. Congratulations to Frankie Bates and Gina Porter who have spear headed this. Meetings will commence in February.

UNC Info

Urology Nurses of Canada

The Urology Nurses of Canada extends an invitation to all nurses and allied health interested in urologic nursing to join the association.

The Urology Nurses of Canada is a National Association whose mandate is to enhance the specialty of urologic nursing in Canada by promoting education, research and clinical practice.

The activities of the Urology Nurses of Canada are designed to enrich members' professional growth and development.

The UNC hosts an annual conference each fall and convenes for an educational meeting at the Canadian Urological Association annual meeting each June.

Membership in the UNC now entitles you to receive 6 issues of Urological Nursing Journal, 2 issues of Pipeline, Annual Urological Excellence Conference information and discount on registration, UNC Membership Directory, UNC Constitution, UNC: Standards of Urologic Nursing Practice and your personal access to UNC reports on the web.

For more information about UNC, contact: Angela Black, Membership Coordinator at blacka@kgh.kari.net or visit www.unc.org.

UNC Representatives 2002 - 2003

UNC Executive

The Urology Nurses of Canada is managed by an executive board composed of:

President:Sue Hammond
Past President:Laurel Emmerson
Vice-President West:Colleen Toothill
Vice-President East:Emmi Champion
Vice-President Central:Susan Freed
Membership:Angela Black
Sponsorship:Darcel Lewis
Treasurer:Lisa Lynch
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Ontario: Fran Stewart
Quebec: Marie-Josée Tardiff
Quebec: Carol-Anne Lee
New Brunswick: Gina Porter
Nova Scotia: Liette Connor
Newfoundland and Labrador: Tracey Tompkins

Descriptions of each position are available in the UNC Constitution. Information on UNC news, programs and reports can be located at www.unc.org

Local Chapter News info: www.unc.org

Victoria	Info: Sandra Rowan	Tel: 205 381-3747
Edmonton	Info: Anna Saskiw	Tel: 780-407-8622
Calgary	Info: Colleen Toothill	Tel: 403-541-3410
Kingston	Info: Lucy Rebelo	Email: rebelo@kingston.jkl.net
Ottawa	Info: Susan Freed	Tel: 613-721-2000 ext 3900
Montreal	Info: Carol-Ann Lee	Tel: 514-842-1231 ext 34959
Halifax	Info: Emmi Champion	Tel: 514-842-1231 - 35212
New Brunswick	Info: Gina Porter	Tel: 506-632-5720
Newfoundland	Info: Tracey Tompkins	Email: tompkins@roadrunner.nf.net

How to form a local UNC Group

1. Contact nurses and allied health in your area interested in Urologic Nursing.
2. Pick a topic and a speaker (for the initial meeting).
3. Book meeting room.
4. Contact local sales rep for potential support of meeting.
5. Advertise meeting and distribute information about the UNC.
6. Create local executive e.g. chairperson, secretary, treasurer.
7. Organize educational meetings/events.
8. Contact UNC provincial representative regarding local business meetings.
9. Encourage submissions of articles and upcoming events to "Pipeline".

Help Wanted!

The UNC invites you to participate with some of the UNC initiatives including:

- Authors for Pipeline articles
- Abstracts for Urological Excellence Conference – 2004 in Calgary

Corporate Sponsor Award Winners

The winners of the UNC Awards Program were announced in Saint John, NB at the Urological

Excellence Conference - 2003. These awards are made available through unrestricted educational grants given via our Corporate Sponsorship Program.

The winner of the **Scholarship Award** was Emmi Champion from Halifax, NS. The Corporate sponsor was Pfizer.

The winner of the **Research Award** was Lesley Hanson from Edmonton, AB. She will be doing research entitled "The Sexual Function of Women Before and After Surgery for Urinary Incontinence and/or Pelvic Organ Prolapse". The corporate sponsor was AstraZeneca.

The winner of the **Male Sexual Dysfunction Award** was Brenda Bonde of Victoria, BC. The corporate sponsor was Pfizer.

The winner of the **Editorial Award** was Frankie Bates from Saint John, NB

Her article was entitled "Assessment of the Female Patient with Urinary Incontinence". The corporate sponsor was Abbott.



*Emmi Champion
Scholarship Award Winner*



*Frankie Bates
Editorial Award Winner*

Urology Nurses of Canada Awards

At each Urological Excellence Conference awards are given by Urology Nurses of Canada for the best short paper presentation and the best poster.

The winner of the award for best **Short Paper Presentation** was Fran Monkman from Winnipeg, MB. Her presentation was entitled "Can We Talk".

The winner of the **Poster** award was Louise McIntosh from Ottawa, ON.

UNC Award Of Merit

Every year Urology Nurses of Canada seeks nominations for the Award of Merit. This is an award which honors a nurse who has not only contributed to Urology Nurses of Canada but has shown leadership to her local colleagues and demonstrated a high level of nursing skills. This year's winner is Louise McIntosh from Ottawa, ON.

Back in 2000 at the Urological Excellence Conference held in Kingston Louise was inspired to be innovative and take initiative by Dr Jeanette Rodgers, the CNA President. She took hold of the challenge. As a result the Urogynecology Clinic of the Ottawa Hospital's Civic Clinic officially opened its doors in November, 2002. The clinic is the only one of its kind in Eastern Ontario. Louise has obtained Nurse Continence Advisor certification and a grant from the Ontario government to help her endeavors. She has spoken at several UNC conferences as well as AQIU conferences in Quebec and has contributed many articles to the Pipeline. She is presently studying for her Masters. Congratulations Louise!!

UNC Membership

UNC Executive has decided the membership year will be from January 1st to December 31st. This means your present membership will be from September 1st, 2003 to December 31st, 2004.

Abstracts Wanted !

Abstracts for concurrent sessions, scientific papers and posters are wanted for the Urological Excellence Conference to be held in Calgary in September, 2004

Watch your mail for applications or Contact Laurel McDonough

Email: lmcdonough@calgaryhealthregion.ca

“Where the Flow Begins”

Over 150 delegates attended this year's Urological Excellence Conference held in Saint John, NB during the fall. The theme was "Where the Flow Begins" and for two days we were inspired by a wide variety of speakers to take a look at what we are doing and how we do it.

Dr Dugre gave a very informative talk about "New Options for Erectile Dysfunction". She outlined the new oral ED treatments Tadalafil and Vardenafil, which are expected on the Canadian market soon. She emphasized the need for proper education and follow-up with prescriptions.

"The New Health-Care Team...Volunteers Included!" was an impressive account given by Dr Nancy Grant of the work done by the Hospice of Saint John in palliative care. She also shared the vision of the Regional Hospice Palliative Care Center with its core components of inpatient care, outpatient care, education resource center and research. The program not only involves doctors and nurses, but also pharmacists, psychologists, social workers, and even volunteers.

We were all deeply moved and challenged by Dr Sean Jennings' presentation aptly entitled "Locked In, Locked Out". Dr Jennings ended up unable to speak or move any part of his body except his eyelids following an MVA. He told of his rehabilitation thus far. He expressed how he felt, how he communicated and how he has come as far as he has. His wife would read

the script when his voice tired. This man believes in getting his story across! His book is used as a textbook for medical students and is available to anyone interested.

Those attending were brought up to date with an overall view of Surgical Management of Stress Urinary Incontinence in Females, looked at Indwelling Catheters, and Ca Bladder, and shared about Laser TURPs. We heard about innovative programs such as the Nurse Continence Advisors, Menopause clinics, Incontinence clinics and a "Healthy Prostates for a Healthy Tomorrow" public presentation.

The conference was rounded off with a very thought-provoking message by Dr Richards from Memorial University Business School, and I quote " While our devices of communication are powerful and pervasive beyond the imagination of even a few decades ago, meaningful communication among human beings is a greater challenge than ever in history." He went on to say we need the skill of interpersonal communication as well as the nursing skills and services.

Congratulations to the team from New Brunswick for putting this all together.

It was a huge undertaking but your hard work paid off. Thank you for your Maritime Hospitality.



UNC Welcomes AQIIU to www.UNC.ORG

The Association Quebecoise des Infirmieres et Infirmiers en Urologie is a francophone group of urology nurses who meet once a year in conjunction with the Quebec Urologists for a one-day conference. Annie Taillefer has been president of their group over the past 11 years. They have watched the interest grow over all these years until now 160 regularly attend. The nurses come from all across Quebec. The last conference was held in November in Quebec City. A bilingual UNC member has presented at this conference for the last two years.

Last November AQIIU approached UNC to see if we couldn't come to a mutual agreement to let them use a part of our web site: www.unc.org. I am pleased to announce that work has begun to develop five pages of francophone content. It is hoped to have this up and running by January, 2004. Carol-Ann Lee, one of our Quebec Provincial Reps, will be the UNC liason. This is a wonderful opportunity to share with our colleagues in Quebec.

Corporate Sponsors

Urology Nurses of Canada Corporate Sponsors for 2003/2004

Each year Urology Nurses of Canada acknowledges and thanks our national **Corporate Sponsors** for their continued support.

For the year 2003/2004 they are:

Titanium Level
AstraZeneca

Platinum Level
Abbott Laboratories

Silver Level
Pfizer

Up Coming Events

Canadian Urological Association

59th Annual Meeting

June 27 – July 1, 2004

Whistler, BC

Call: 514-499-8920

E-mail: sreid@pgi.com

Website: www.cua.org/2004meeting

Urology Nurses of Canada at the CUA meeting

Monday, June 28, 2004

16.00 – 18.00 hrs

Call: 709-368-0101

E-mail: dhammond@avint.net

Website: www.unc.org

17th Urological Excellence Conference September 23 -25, 2004

Marriott Hotel,

Calgary, AB

"Rocky Mountain Dreams & Streams"

Call: 403-266-7331

E-mail: lmcdonough@calgaryhealthregion.ca

Website: www.unc.org

Society of Urologic Nurses & Associates

The Annual Symposium

March 18 – 20, 2004

Hyatt Regency Chicago,

Chicago, IL, USA

**"Disorders of the Bladder,
Bowel and Pelvic Floor"**

Call: 888-827-7862

E-mail: suna@ajj.com

Website: www.suna.org

Local Meetings

Victoria, BC

Chapter meetings

Contact: Sandra Rowan

E-mail: gsteinhoff@bc1.com

Edmonton, AB

Chapter meetings

"Urology Daze"

Contact: Anna Saskiw

E-mail: asaskiw@telusplanet.net

Kingston, ON

Chapter meetings

Contact: Lucy Rebelo

E-mail: rebelo@kingston.jkl.net

Ottawa, ON

Chapter meetings

Contact: Susan Freed

E-mail: freeds@rogers.com

Saint John, NB

Chapter meetings

Contact: Gina Porter

E-mail: porgi@reg2.health.nb.ca

St John's, NL

Chapter meetings

Contact: Sue Hammond

E-mail: dhammond@avint.net

New Meetings Coming Soon

Toronto, ON

Contact: Fran Stewart

E-mail: bladderqueen@hotmail.com

Montreal, QC

Contact: Carol-Ann Lee

E-mail: cddthibert@sympatico.ca