



NEWSLETTER

*"Promoting the Highest Standards
of Endocrine Nursing Practice,
Education and Research"*

Male Sexual Dysfunction

Volume 13, Number 3

December, 2003

MALE SEXUAL DYSFUNCTION

by Richard Hellman, M.D.

Introduction:

One has only to pick up a newspaper, or magazine, or turn on a television to see that erectile dysfunction is very much on the public mind. Sales pitches for Viagra or Levitra fill the advertising space, arming the patient's with information about erectile dysfunction, and encouraging them to speak frankly with their health providers about their sexual needs. The result has been, from the pharmaceutical companies point of view, block-buster sales, but from a clinician's point of view, the new focus has been a double-edged sword.

In truth, erectile dysfunction should be always first looked at as just a symptom of male sexual dysfunction. Moreover, the causes may be both multiple, and very subtle. If the male has a partner, the problem he has may also be causing much distress with his partner as well. For optimal care, the initial complaint of erectile dysfunction (ED) should be first evaluated by a sensitive and complete sexual history as well as a more general history to find other important factors, both situational, and historical, that may play a major role in the symptom of erectile dysfunction. For example, knowing that the partner has a serious medical illness or disability may be crucial in explaining why the person has ED. Fatigue, distraction, depression, anxiety, or external factors such as financial difficulties and loss of sleep are examples of other common factors adversely affecting a man's erectile function. Other important issues that are commonly not well appreciated are the natural changes due to aging.

The Aging Male:

Younger males have the ability to respond directly to a visual or mental erotic stimulus alone with an erection. As men age, this ability decreases, and the visual or mental erotic stimulus may need to be augmented with direct penile stimulation. Foreplay becomes more important for the older male (often to the great relief of their partner). The older male also differs in their ability to become erect again after having had an orgasm. Whereas the younger male may have a recovery time of 30 minutes, it may take up to three days for an eighty year old. In addition, because of the gradual age related decline in testosterone, both the libido of the male as well as their erectile function may decrease.

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From the Desk of Joanne Swenson

PRESIDENT'S MESSAGE

Greetings. It is hard to believe that the balmy days of summer have passed and the winter holidays are rapidly approaching. During this time your ENS board has been hard at work. At our recent board meeting in October we addressed ENS activities for next year. There will be many opportunities for ENS members to participate in.

The program for the next annual symposium has been finalized. It continues to be more informative and exciting each year. New Orleans will host the meeting next year and I hope that you are planning to attend.

In addition, the ICEN meetings will take place in Portugal late next summer. International liaison Molly Soares has been working with other members of the international endocrine nursing community to put a great program together. This will be a great opportunity for education and sharing with colleagues from around the world. Please consider attending that meeting. Molly will keep the membership informed as plans are finalized.

Many other opportunities are available to ENS members, The call for submission of abstracts for research grants and posters recently went out. Please consider applying for one and share your interests and expertise with other members. Research Committee Chairperson Cathy Kessenich is a valuable resource and is eager to assist you in the process. The preceptor program is up and running. If you know someone who may be a candidate or would like to be a preceptor let us know. There will also be openings for chairpersons of some of the ENS committees. This is an excellent opportunity to become more involved in the organization and a chance to work with a terrific group of people. If you think that you might be interested please contact me.

I hope that everyone has a safe and pleasant holiday season. Take care.

MALE SEXUAL DYSFUNCTION

(Continued from page 1)

It is also important to realize that particularly in the aging male; their erectile dysfunction may be due to both organic and psychological factors, the latter being secondary to their distress of having erectile dysfunction. Many men are unaware how commonplace transient sexual dysfunction is - in fact, Masters and Johnson defines ED as a failure of function that occurs in at least 25% or more of the subjects attempts at sexual intercourse. Often just reassurance and education about normal physiology and changes of aging may have a profoundly positive effect upon the worried patient.

Physiology of sexual function:

The normal physiology of the erectile response is complex and dependent upon neural, vascular, and hormonal factors. Testosterone appears to be important both for libido and in enhancing the erectile response, but levels of testosterone may not always predict sexual function. Of more consistent importance is the neural input. In the male, the neural stimulation is dual: arousal impulses from the brain course down the spinal cord and leave via thoraco-lumbar ganglia. There is also a reflexive arc from the spinal cord at S2-4 through parasympathetic fibers and the pudendal nerve. There are also non-adrenergic, non-cholinergic nerves that innervate the corpus cavernosa of the penis and stimulate the major vascular mediator, the production of nitric oxide. Nitric oxide causes relaxation of the smooth muscles of the cavernosal smooth muscles of the penis and the arterioles allowing for the filling of the cavernosal spaces of the penis with blood, which causes erection. The blood filled spaces also press against the penile veins, compressing them against the elastic tissues of the tunia albuginea, which surround the vascular spaces, preventing venous leakage and maintaining the erection.

The nitric oxide is formed by the action of the enzyme nitric acid synthetase (NOS), and acts by stimulating guanylate synthetase, which controls the formation of cyclic GMP, the second messenger that causes the changes that lead to the relaxation of the cavernosal smooth muscle, causing erections. Cyclic GMP is broken down by PDE-5(Phosphodiesterase-5) and it is this substance that when inhibited by a PDE-5 inhibitor, as for example, sildenafil(Viagra), vardenafil(Levitra), or tadalafil(Cialis) results in prolonged and enhanced erections.

The newer Phosphodiesterase inhibitors: sildenafil (Viagra), vardenafil (Levitra), and tadalafil (Cialis).

Few medications have been as widely studied as sildenafil. It was the first of the three PDE-5 inhibitors, and is very effective in a wide variety of settings. The medication has been effective in men who have had surgery for prostate cancer, diabetes, as well as in a wide variety of other settings. The reported effectiveness in restoration of erectile function after drug titration to the optimal dosage is generally in the range of 60-80%.

The three medications have many similarities, and several notable differences. Each of the three medications is effective. Their effectiveness is related to blood drug level. Sildenafil and vardenafil have shorter durations of action(about 4-5 hours), than does tadalafil, which lasts from 24-36 hours. Their onset is relatively rapid, each having the onset of activity within an hour, and some data suggests vardenafil and tadalafil may have an onset even faster, within 30 minutes, or even less.

Drug interactions:

Each of PDE-5 inhibitors is metabolized in the liver by microsomal enzymes, the CYP 3A4 isoforms. Since other drugs powerfully inhibit these enzymes, very markedly elevated blood levels may result from drug interactions with the inhibiting drugs, and toxicity from the PDE-5 medications may result. Among the CYP 3A4 enzyme inhibitor medications are the HIV protease inhibitors, erythromycin, and antifungals, including ketoconazole.

Another important interaction occurs with nitroglycerin preparations, which may lower the blood pressure significantly, and are contraindicated with PDE-5 inhibitors. Cardiologists will try not to use nitroglycerin for at least 24 hours after a dose of PDE-5 inhibitor has been given. Also, antihypertensive agents such as alpha blockers, as for example, hytrin, or minipress, also can cause very low blood pressures and should not be used together with PDE-5 inhibitors.

On the other hand, it appears that sildenafil seems reasonably safe in patients with hypertension and coronary artery disease and it is not the medication, but the increased activity that is the major cardiac stressor. On the other hand, there is a possibility that patients on quinidine or procainamide or those with a prolonged QT interval could have a drug interaction with the PDE-5 inhibitor group resulting in dangerous prolongation of the QT interval. The PDE-5 inhibitors should be avoided in this setting. Also, many authorities suggest avoiding these medications in patients with severe heart disease

Although there is limited information about tadalafil, it appears to cause back and muscle pain, particularly with daily use, and this side effect has led to discontinuation of the drug in some cases. One possible mechanism is due to a crossover effect of the drug which stimulates PDE-11 receptors which can be found in skeletal muscle. This crossover effect is not present with vardenafil or sildenafil.

On the other hand, each of the three PDE-5 inhibitors has a crossover effect on the PDE-6 receptors which are in the retina, and some visual color disturbances, transient in nature, occasionally occurs. For this reason, these medications are not used with patients with Retinitis Pigmentosa and some clinicians are withholding them from people with advanced diabetic retinopathy.

Make plans now to join us in New Orleans in June!
14TH ANNUAL ENDOCRINE NURSES SOCIETY (ENS) SYMPOSIUM
JUNE 17-18, 2004, NEW ORLEANS

THURSDAY, JUNE 17

6:30-8:30 pm **Poster Session and Cocktail Reception**

FRIDAY, JUNE 18

7:30-8:00 am **Genomics 101**
Beth Lucasey, RN

8:05-9:00 am **Thyroid Incidentalomas**
Janet Walsh, RN
Susan Mandel, MD

9:05-10:00 am **Advances in Medical Therapies for Acromegaly**
Ariel Barkan, MD

10:15-11:10 am **Osteoporosis in Organ Transplant Patients**
Elizabeth Shane, MD

11:15 am-12:10 pm **Alternative Therapies in Menopause Management**
Kathryn Martin, MD

12:15-1:30 pm **Luncheon and Business Meeting**

1:30-2:25 pm **Childhood Obesity**
Cindy Cain, RN
Georgenna Klingensmith, MD

2:30-3:25 pm **Adrenal Insufficiency**
Dana Ayer, APRN, AOCN
Carl Malchoff, MD

3:30-4:25 pm **Male Sexual Dysfunction**
Denise Kramer Levien, RN

4:30-5:00 pm **Evaluation/Raffle/Wrap Up**

QUESTIONS? Contact Program Co-Chairs:
Becky Qualey, RN, Phone: 1-212-639-8944, email: qualey@mskcc.org
Marian L. Shepphard, RN, Phone: 1-804-828-8932, email: mlsheppa@hsc.rcu.ed

Membership Reminder:

Renewal Campaign in process. Don't forget to renew your membership for the 2003-2004 term!
Thanks for your loyalty and support to the ENS!

2ND INTERNATIONAL CONGRESS OF ENDOCRINOLOGY NURSING (ICEN)

by Molly Solares

The 2nd International Congress of Endocrinology Nursing (ICEN) will take place in Lisbon, Portugal, concurrently with the 12th International Scientific Sessions, August 31st - September 4th 2004.

The goal of the nursing symposium is: 'Global endocrine nurse issues: their commonality and diversity'. Endocrine nurse groups from all over the world will be represented with each group being responsible for a session, to achieve a truly international flavour.

The planning for the ICEN meeting is in progress with 1/2 day sessions planned for September 1-3. Speakers will discuss a variety of topics. Updates on Global Obesity, Polycystic Ovary Syndrome and Turner Syndrome are planned. Nurses from around the world will be invited to present on Endocrine related topics in an open forum during each 1/2 day session as well. Look for information regarding abstract and poster submissions in the next edition of the Newsletter or updates on the ENS website.

The registration fee, early, late, or on time, for nurses is €300. Hotel bookings include breakfast. For additional information please visit the ICE website at www.ice2004.com

Lisbon is the capital of Portugal and one of the oldest capital cities of Europe. The city is located along the banks of the Tagus River and situated close to the Atlantic coastline. Lisbon boasts temperatures in September of 20-25°C (68-77° F) and average sunshine of 9 hours a day. This is legendary city with over 20 centuries of history to explore!

Information will be updated soon and posted on the ENS website (www.endo-nurses.com), as it is finalized. Looking forward to seeing you there!



ICEN PORTUGAL 2004

GOAL: GLOBAL ENDOCRINE NURSE ISSUES: THEIR COMMONALITY AND DIVERSITY

WEDNESDAY SEPTEMBER 1ST

Afternoon ENS

PLENARY **Insulin Resistance Syndrome**

NURSES IN ACTION
abstract submissions

THURSDAY SEPTEMBER 2ND

Morning UK

PLENARY PCO

Afternoon PENS

PLENARY **TURNERS Syndrome**
followed by case presentation and posters

FRIDAY SEPTEMBER 3RD

Morning ENSA (AU)

“An Endocrine Odyssey Through Asia”

(This presentation will focus on intersex disorders and how local culture and beliefs affect attitudes towards and decisions that are made about surgery, sex assignment and hormonal treatment.)

Endocrine Trivial Pursuit

NURSES IN ACTION
Research & Case Presentations

MALE SEXUAL DYSFUNCTION

(Continued from page 2)

Also, the metabolic clearance of the PDE-5 inhibitor dosage is diminished with increasing age, and with significant hepatic and renal disease. As a result, the initial dose of these medications must be reduced in the elderly, in those with renal or liver disease and reduced drastically in patients who are also receiving inhibitors of the CYP 3A4 enzymes. It is very important that the patients receive education about what to expect, how to use their medication, and that the medications be carefully titrated for safety.

Other Treatments:

The efficacy of the PDE-5 inhibitors have greatly reduced interest in the older therapies, from the use of medications such as yohimbine, which is much less effective, to intrapenile prostaglandins, which has a variety of adverse side effects, and is not well tolerated by many patients. Use of vacuum pumps has diminished, as has had interest in the surgical therapies, such as penile implants. There remains a limited use for these treatments. Recently, there has been a considerable interest in the use of the drug apomorphine, which can be quite efficacious, but it has a major side effect of commonly causing nausea and vomiting and this appears to be a limiting factor in its use, in contrast to the PDE-5 inhibitors, which have a lower incidence of side-effects, most often: headache, flushing, transient visual effects, and only occasionally: nausea, and orthostatic hypotension.

Conclusions:

Erectile dysfunction can be best evaluated with a more holistic approach, with attention not only to the patient, but their partner. It is not enough to give a pill, for knowing who the patient is, and the setting in which they exist, is essential for proper diagnosis and treatment. A team approach, involving endocrinologists, endocrine nurses, and specialists in sex therapy, urology, and psychology, can form a milieu that will produce the best results for this often vexing problem.

Bibliography

1. AACE Male Sexual Dysfunction Task Force: "AACE Male Sexual Dysfunction Guidelines" Endocrine Practice, 2003 vol 9 No.1, pg 77-95
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3. ACC/AHA Expert Consensus Document Writing Group "Use of Sildenafil (Viagra) in Patients With Cardiovascular Disease, Circulation 1999, Vol 99, pg 168-177
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UPDATE FROM THE THYROID TASK FORCE:

by Marge Ewertz, RN

The Thyroid Task Force has been working diligently to develop a patient education tool for thyroid hormone administration. We were fortunate enough to collaborate with King Pharmaceuticals (makers of Levoxyl and Tapazole) and receive a grant for this project. Becky Qualey (Memorial Sloan Kettering Cancer Center), Denise Verity (Vanderbilt), Janet Walsh (University of Pennsylvania) and Marge Ewertz (Johns Hopkins) contributed their expertise towards the development of this handout. We plan to post this information on our website in January 2004, so please feel free to use this information for your clinical practice.

ENS WARMLY WELCOMES THE FOLLOWING NEW MEMBERS FOR THE 2003-2004 TERM:

Beard, Lori
Cuevas, Heather
Finter, Theresa
Hale, Amy
Hower, Roberta
Hoyeck, Patricia
Kopelman, Barbara
Petkov, Valentina
Pham, Loan
Price, Teresa
Ridge, Paula
Rouette, Gerri
Sporre, Susan
Taylor-Multhaupt, Karina
Wilson, Marilyn

Visit our website at
www.endo-nurses.org
to see "What is New"

CALENDAR OF EVENTS:

February 26-29, 2004	Third National Symposium on Pituitary Disorders, Clearwater, FL
April 14-17, 2004	PENS, Las Vegas, NV*
April 22-24, 2004	Preventive Cardiovascular Nurses Association 10th Annual Symposium and Exposition, Orlando
April 28-May 2, 2004	AACE's 13th Annual meeting and Clinical Congress, Boston*
May 6-12, 2004	2004 National Nurses Week
June 18, 2004	14th Annual Endocrine Nurses Society Symposium, New Orleans*
June 16-19, 2004	The Endocrine Society 86th Annual Meeting, New Orleans*
Aug 31-Sept 4, 2004	2nd International Congress of Endocrinology Nursing, Lisbon, Portugal
Sept 29-Oct 3, 2004	76th Annual Meeting of the American Thyroid Association (ATA), Vancouver, British Columbia

* Please plan to visit the ENS booth if you are attending these meetings and meet up with members who share your interests.

To all ENS Members:

Poster Awards

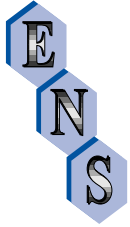
available to all ENS members. All ENS members who submit posters to the Endocrine Society for the annual meeting in New Orleans will be eligible for consideration for this \$750 award.

See the Endocrine Society web site (www.endo-society.org) for details and be aware that the deadline for submission is *January 14, 2004*.

Research Awards

available to all ENS members. All ENS members are eligible to receive this \$2000 award.

See the ENS website (www.endo-nurses.org) for details and be aware that the deadline for submission is *February 14, 2004*.



ENDOCRINE NURSES SOCIETY

MEMBERSHIP APPLICATION

Date of Application _____
 Renewal of Membership
 New Member
Recruited by _____

Name: Last _____ First _____ MI _____

Preferred Mailing Address _____

Organization/Employer _____

Position Title _____ Subspecialty Area(s) _____

City/State/Province _____ Zip/Postal _____ Country (if non-USA) _____

Phone Home Business _____ FAX Number _____ E-Mail Address _____

Please provide the following information, allowing ENS to serve the needs of its members

<u>Committee Interest</u>	<u>Education/Licensure</u>	<u>Position</u>	<u>Birthday Month</u>
<input type="checkbox"/> Development	<input type="checkbox"/> RN	<input type="checkbox"/> Clinical Staff	<input type="checkbox"/> Jan <input type="checkbox"/> Jul
<input type="checkbox"/> Education	<input type="checkbox"/> NP	<input type="checkbox"/> Patient Education	<input type="checkbox"/> Feb <input type="checkbox"/> Aug
<input type="checkbox"/> Marketing	<input type="checkbox"/> MS	<input type="checkbox"/> Staff Education	<input type="checkbox"/> Mar <input type="checkbox"/> Sep
<input type="checkbox"/> Membership	<input type="checkbox"/> CDE	<input type="checkbox"/> Administration	<input type="checkbox"/> Apr <input type="checkbox"/> Oct
<input type="checkbox"/> Program	<input type="checkbox"/> PhD	<input type="checkbox"/> Clinical Specialist	<input type="checkbox"/> May <input type="checkbox"/> Nov
<input type="checkbox"/> Publications	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Study/Research Coordinator	<input type="checkbox"/> Jun <input type="checkbox"/> Dec
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	_____	<input type="checkbox"/> Other: _____	

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We would like to thank the following companies for their gracious support:

- Abbott Pharmaceuticals
- Aventis
- Eli Lilly
- Genentech, Inc.
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- Novartis Pharmaceuticals
- Novo Nordisk
- Pharmacia