

UROLOGY and Aging Men

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Aging = Planned Obsolescence

- We are designed to make room for the next generation.
- This has implications

Symptoms of BPH

- *Obstructive*

- Weak stream
- Dribbling
- Hesitancy
- Straining
- Intermittency
- Incomplete voiding

- *Irritative*

- Frequency
- Nocturia
- Incontinence
- Urgency



Pathophysiology of BPH

- CAUSE AND EFFECTS
- Prostate growth
- Increase urethral resistance
- Decreased force of stream and intermittency (obstructive sx)
- Detrusor response to maintain flow
- Frequency, urgency, and nocturia primarily detrusor (failure to store) symptoms

Differential Diagnosis Obstructive Voiding Symptoms

- Urethral Stricture
- Poorly Contracting bladder
- Prostate cancer
- Urethral Valves
- Bladder neck contracture
- BPH

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What to ask

AUA Symptom Index/ score

- 7 Questions asked on scale of 0 (not at all) to 5 (almost always)
 - Sensation of Incomplete emptying
 - Urinate more than every 2 hours
 - Stop and start several times
 - Difficult to postpone urination
 - Weak urinary stream
 - Push or strain to begin
 - Get up at night to urinate

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When to Treat

- AUA Symptom Score < 7
 - Watchful waiting
- AUA Symptom Score > 7
 - Watchful waiting
 - Medical treatment
 - Invasive treatment
 - Surgical treatment

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Guidelines for Treatment

- Standard
 - Mild symptoms (AUA score < 7) watchful waiting
 - Moderate (8–19) and severe (> 19) symptoms : give information on benefits and harms of treatment options
- Asymptomatic patients with BPH generally do not require treatment
- For patients with complications due to BPH, prostate surgery is usually appropriate
- Decision to treat all other symptomatic patients with BPH should be based on likely outcomes associated with each rx

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The Burden of Prostate Cancer

- 230,000 men diagnosed in 2004
- 29,000 deaths

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Clinical Features of Prostate Cancer

www.cancerscreening.nhs.uk/prostate/prostate-booklet-text.pdf

- Prostate cancers (unlike BPH) tend to develop in the outer part of the prostate gland
- Unusual for early cancers to cause any symptoms
- Locally advanced prostate cancers that have extended outside the capsule are also frequently without symptoms
- If the tumour is large enough, it can cause lower urinary tract symptoms (LUTS) eg frequency, urgency, hesitancy, leaking, but by the time this happens the cancer will usually have reached an advanced stage
- LUTS are similar to those of BPH. Most men with LUTS will not have prostate cancer
- Often the first sign of prostate cancer is evidence of metastases (frequently in bone, causing bone pain)

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To Screen or Not to Screen? Rationale of Early Detection



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Erectile Dysfunction and Andropause

- Effects of Aging on Reproductive Function
 - Decreased Testosterone
 - Decreased Fertility
 - Decreased Erectile Function

Erectile dysfunction is a local manifestation of systemic vascular dysfunction

- Erectile dysfunction is warning sign of angina and heart disease. The penile vessels are smaller and are blocked with less atherosclerosis.
- Healthy behaviors, diet, exercise, weight loss can improve sexual function (and have added benefit of helping the rest of the body too)
- Those expensive pills for impotence also work better if healthy behaviors are performed as well

Treatment of Erectile Dysfunction

- *Psychogenic:*
 - *Sex therapy, sensate focusing, etc.*
 - *Yohimbine in the past (no longer available)*
- *Organic:*
 - *Yohimbine in the past*
 - *Hormonal supplementation, if appropriate*
 - *Viagra, Levitra, Cialis (Phosphodiesterase inhibitors)*
 - *MUSE (PGE-1, a vasodilator)*
 - *Penile Injection Therapy (Papaverine, Regitine, PGE-1)*
 - *Trimix, Edex, Caverject*
 - *Vacuum Erect Devices*
 - *Penile Implants (Semi-rigid, Inflatable)*
 - *Other surgery – venous ligation for “venous leak,” penile revascularization for rare instances of focal arterial lesions*

What Can The Patient Do?

- *Lose weight, if appropriate*
- *Stop smoking*
- *Exercise*
- *Reduce alcohol intake, if “excessive”*
- *Improve diabetic control, if possible*

- *Reduce external stress,
to the extent possible*



Male Hypogonadism

- Terminology – options abound!
 - *Late Onset Male Hypogonadism (LOH/LOMH)*
 - *SLOH = Symptomatic Late Onset Male Hypogonadism*
 - *Androgen Deficiency of the Aging Male (ADAM)*
 - *Male Climacteric*
 - *“Low T”*
 - *Andropause – a popular but inherently inaccurate term, intended to liken declining testosterone levels with age in males to menopause in females. Menopause is inevitable. Male hypogonadism is not.*
 - *Testosterone Deficiency Syndrome (TDS) (Preferred)*

Anatomical changes occurring with aging in men

- Decrease of bone mineral density
- Decrease of muscle mass and strength
- Increased of fat mass (in particular of visceral fat)
- Decrease of testicular size and weight
- Increase of atherosclerosis

Causes of Testosterone Deficiency (hypogonadism)

- Primary and/or secondary (mixed) hypogonadism:
 - Hypercortisolemia
 - Exposure to occupational/environmental chemicals
 - Systemic illness
 - renal failure, liver cirrhosis, diabetes mellitus, rheumatoid arthritis, AIDS, coronary artery disease
 - Medications
 - ketoconazole, anabolic steroids, corticosteroids, spironolactone, cimetidine, phenytoin and flutamide

I Aging

Updated Society of Endocrinology guidelines for Testosterone supplementation (2010)

- Yes for decreased bone density, muscle mass
- Yes qualified for sexual function/ well being— inadequate good randomized placebo controlled trials with consistent positive results
- No for history of prostate/breast cancer, nodule, PSA >4 or >3 for high risk for CaP-AA, first degree relative for CaP, +FH, HCt >50%, severe sleep apnea, severe LUTS, uncontrolled heart failure, men wanting fertility

Who to screen: chronic illness associated with low testosterone

- HIV weight loss,
- End stage renal disease dialysis
- Chronic obstructive pulmonary
- Osteoporosis or fracture with low trauma
- Type 2 Diabetes
- Chronic steroids or opioids
- Self report questionnaires felt to have unproven cost effectiveness and specificity.
- One single low value unreliable (30% normal)

Andropause Symptoms

- Bone mineral density ↓
- Muscle mass and strength ↓
- Obesity ↑
- Libido ↓
- Erectile dysfunction ↑
- Hematopoiesis ↓
- Depressed mood ↑
- Cognitive function ↓
- General well-being ↓

Epictetus : Attitude

- Approach life as a banquet, you might not like every thing being served,
- But be thankful that you invited to attend