Special Issue •

가

## 노인의 비뇨기과 질환

## **Urologic Diseases in Elderly Men**

Choong - Hyun Lee, M.D.

Department of Urology

Kyung Hee University School of Medicine & Hospital

E - mail : chlee@khu.ac.kr

## Abstract

With the increasing life expectancy, health care providers are faced with a task to support the aging population. task to support the aging population to remain healthy and vital. Especially in Korea, the elderly population is increasing rapidly, and the urology, as a medical specialty, has become one of the biggest concerns. Four major, non - cancerous diseases adversely affecting male individuals over 50 years of age include erectile dysfunction (ED), benign prostatic hyperplasia (BPH), cardiovascular disease (CVD), and depression. BPH is the most common benign neoplasm in aging men and the pathologic process also contributes to the development of lower urinary tract symptoms. The management of BPH has undergone tremendous changes in recent years. The introduction of new oral therapeutic agents has revolutionized the diagnosis and therapeutic approaches to ED. An increasing number of men are currently seeking medical attention for their sexual and voiding concerns, often visiting private physicians. In this article I will specifically focus on the guidelines for clinical evaluation and treatment of BPH and ED to update physicians' knowledge to improve the quality of clinical services. These guidelines highlight the evolving field of minimally invasive medical therapy through a tailored approach to meet each individual's expectation including oral agents as the first-line therapy. In case the first - line therapy fails, a referral to a specialist is recommended.

Keywords : Guideline; Benign prostatic hyperplasia; Erectile dysfunction; Aging male

가 ; ; ;

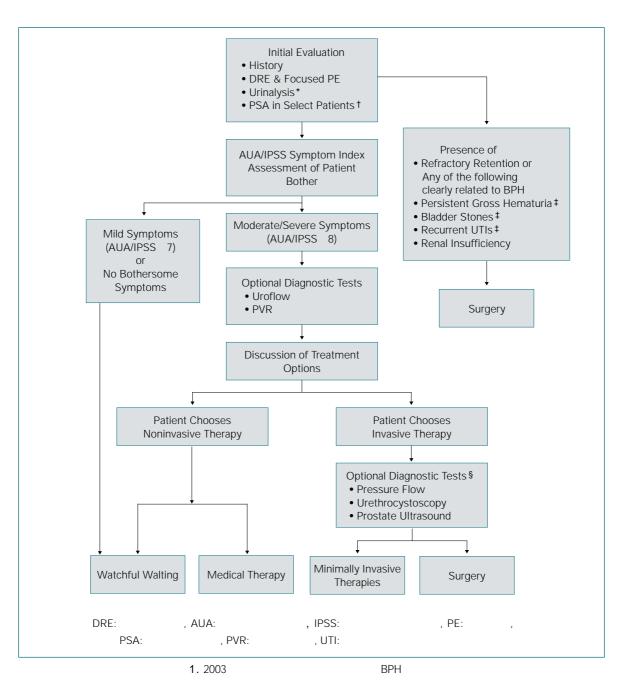
20<sup>05</sup> 1 (1) 2000 65 71 337 7.3%

가 2022 14% .

가

22 25 가 가 가 가

50 4가 ( ED ), ( BPH ),



 Special Issue •

						1)				
	;	가						:		
		•			ED				,	가
BPH									가	
가	1									
			•			2)				
		BPH	ł			2)				
							(digital	rectal	examination,	DRE)
BPF	Ι,	,	,				,		,	
						BPH				
		. [	ВРН						,	,
40		60	50%	, 85	90%					
	가 .				가	3)				
					가	,				
		19	997					,	(carcinon	na in situ),
		(3)	10	ВРН		,	ВРН		,	가
	가	200	3							
BPH				(	1)(4).					
	ВРН						PSA		DC A 7	
	וווט				BPH,	rborn(5)	,	PSA가 ,		
1.	가(Initi	al Evaluation	on)			, 가		,	,	
						(screening)				
				가			10			
(	PSA ,	)						가 가	, PSA	PSA
`		, 가								. 0/1

가

```
5)
                                               1)
                                                  (Pressure - Flow Urodynamic Study)
                                      가
                  CIS
 6)
 1994
                                    가
      (3),
              10,000
                       BPH
                               BPH
       1%
                                               2)
                  가
                          2003
                                    BPH
                                                                    가
                     가
2.
        가(Symptom Assessment)
                                               3)
             가
        (International prostate symptom score,
IPSS)
             . 0
                   5
                              7가
                                               4)
     가
                        7가
    0~7
              , 8~19
                             , 20~35
                                BPH
                                가
                                                              BPH
BPH
                                               20
                                                  (tranurethral prostatectomy, TURP)
3.
               (Optional Diagnostic Test)
                                                                                 TURP가
                                                    , 20
                  BPH
 가
     가
                                                                       21
                              BPH가
                                     가
                                                TURP가
          가
```

Special Issue · 7

가 , , , , 가 .

, www.auanet.org clinical guideline main reports management of BPH(03) chapter 3 : results of treatment outcome analysis .

2. 2) 5
BPH , 5 Finasteride, dutasteride가 가 가

phytotherapy . 가 , BPH . 5

가 , Alfuzosin, Doxazosin, Tamsulosin, Terazosin 가 IPSS 3

. 1 가 , , , ,

가 가 IPSS 4~6 가 .

<ul><li>3)</li><li>5</li></ul>	5	<ul><li>2) Tranurethral Needle Ablation</li><li>(TUNA; Medtronics; Minneapolis, Minnesota)</li><li>2 18</li></ul>			
가 . PSA 가		. TURP TUMT			
doxazosin finasteride	가	3) Stent  polyurethane stent , , stent			
4) Phytotherapy					
가 가 BPH	, 가	2. BPH .			
(7). 3.		1) TURP			
1)					
(Thermotherapy and Hyperthermia) $45\sim50~\mathrm{C}$					
45 ℃ ,	45	Tranurethral Evaporiztion of Prostate (TUEP)  TURP roller ball			
. , ,		TURP ,			
FUMT(trnasurethral microwave therapy)가	가				
,		3) Transurethral Incision of Prostate (TUIP)			
		30gm 1~2			

Special Issue · 7

가 가 가 가 가 6 가 Impotent 4) Laser Therapy Nd:YAG holmium laser 가 가 **TURP** 1994 Massachusetts Male Aging Study 가 40~70 KTP laser 가 52% , 1,000 24 가 (8) 5) 10% **TURP** 80~100gm 70~90% 가 가 6. 1) Transurethral Injection of Absolute Alcohol 가 가 가 (chemo - ablation) (9). 가 15 가 2) HIFU (High Intensity Focused Ultrasound) 4~10MHz 가, 70 가 가 (10, 11). 가 (Eretile Dysfunction, ED) 가 가 가

2002 European Association of Urology 가 (12) 가 가 가 (13). 1. 1) 2. 가 가 가 IIEF(Inter-1) (Nocturnal Penile Tume national Index for Erectile Function) scence and Rigidity, NPTR) 3~4 가 2) 가 Rigiscan 가 50 60% 가 10 가 (14). 3) 2) PSA, 가 30 10

243

Special Issue · 7

PDE 5 inhibitor Sildenafi citrate 가 (Viagra), Vardenafil hydrochloride(Levitra), Ta-가 dalafil(Cialis) 3가 3) PDE 5 (Duplex Ultrasonography) c - GMP 가 가 (16, 17). 30cm 가 0.8 (14, 15). 가 가 가 , ketoconazole, erythromycin PDE 5 가가 inhibitor 가 가 (14). 20 60 , 65 가 가 3

1. 1

1) Phosphodiesterase 5 Inhibitor (PDE 5 inhibitor)

가

2) Apomorphine Sublingual

가

가

Dopamine				3. 3			
	20			1) 1, 2	가		
3)						가	
	band		가				
2. 2				2000			
1)	E1,			25			
	60	)~90%		가		가가	
	,	,					,
	•	가					가 가
	가	가					71
	4	가				,	
				가 .		가 가	
2)	E1						
		가				1	가
			•				

## Special Issue - 7

가 , 1 가 , 가 가

. 😙

1. (1960~2050) (http://kosis.nso.go.kr/Magazine/PJ/PJ0102.xls)

- Zakaria L, Anastasiadis AG, Shabsigh R. Common conditions of the aging male: erectile dysfunction, benign prostatic hyperplasia, cardiovascular disease and depression. Int Urol Nephrol 2001; 33: 283 - 92
- AUA practice guideline committee. AUA guideline on management of benign prostatic hyperplasia (2003). Chapter 1: diagnosis and treatment recommendations. J Urol 2003; 170: 530 47
- Roehrborn CG, Malice M, Cook TJ, Girman CJ. Clinical predictors of spontaneous acute retention in man with LUTS and clinical BPH: a comprehensive analysis of pooles placebo broups of several large clinical trials. Urology 2001; 58: 210 6
- 6. Lam JS, Cooper KL, Kaplan SA. Changing aspects in the evaluation and treatment of patient with benign prostatic hyperplasia. Med Clin N Am 2004; 88: 281 - 308
- 7. Lepor H, Lowe FC. Evaluation and nonsurgical management of benign prostatic hyperplasia. In: Walsh PC, Retic AB,

- Vauhgan ED Jr, Wein AJ, eds. Campbell's urology. 8th ed. Philadelphia: WB Saunders, 2002: 1337 - 78
- Feldman HA, Goldstein I, Hatzichiristou DG, Krane RJ, McKinlay JB. Impotence and its medical and psychosocial correlates: results of the Massachusetts Male Aging Study. J Urol 1994; 151: 54 - 61
- Krane RJ, Goldstein I, Saenz De Tajada I. Medical progress: impotence. N Engl J Med 1989; 321: 1648 - 53
- Goldstein I, Leu TF, Padma Nathan H, Rosen RC, Steers WD, Wicker PA. Oral Sildenafil in the treatment of erectile dysfunction. N Engl J Med 1998: 338: 1397 - 404
- Sharaby JS, Benet AE, Melman A. Penile revascularization: impotence. Urol Clin North Am 1995; 22: 699 - 709
- Wespes W, Amar E, Hatzichristou D, Montorsi F, Pryor J, Vardi
   Y. Guidelines on erectile dysfunction. Eur Urol 2002; 41: 1 5
- 13. Leiblum SR, Rosen RC, Platt M, Cross RC, Black C. Sexual attitudes and behavior of a cross - sectional samples of US medical students: effect gender, age, and year of study. J Sex Educ Ther 1993; 19: 235
- Meuleman EJ, Diemont WL. Investigation of erectile dysfunction: diagnostic testing for vascular factor in erectile dysfunction: impotence. Urol Clin North Am 1995; 22: 803 - 19
- 15. Broderick GA, Lue TF. Evaluation and nonsurgical management of erectile dysfunction and priapism. In: Walsh PC, Retic AB, Vauhgan ED Jr, Wein AJ, eds. Campbell's urology. 8th ed. Philadelphia: WB Saunders, 2002: 1619 71
- Kalsi JS, Cellek S, Munneer A, Kell PD, Ralph DJ, Minhas S.
   Current oral treatemnt for erectile dysfunction. Expert Opin Pharmacother 2002; 3: 1513 - 29
- 17. Corbin JD, Francis SH, Webb DJ. Phosphodiesterase type 5 as a pharmacologic target in erectile dysfunction. Urology 2002; 60(Suppl 2B): 4 - 11