기능성 식품의 연구 설계

-성기능 개선 관련 기능성 평가체계를 주축으로-

Establishment of a System to Evaluate the Efficacy of Functional Foods

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Abstract

here are many functional foods available nowadays. Functional foods are believed to promote health, physical activities, and satisfaction. However, their efficacy should be proved through both laboratory and clinical trials. To evaluate the efficacy, in vitro effects of specific animal model can be used as an objective laboratory screening test. In vivo function tests can be used as a preclinical animal study with or without administration of functional foods. In clinical trials, validated questionnaires and objective function tests can be used according to various study models. Therefore to validate the efficacy of any nutritional supplement, one or more laboratory results and validated clinical study are necessary. In conclusion, the safety and efficacy of functional foods should be decided based on a functional testing guideline, which can substantially decrease the incidence of drug overuse and protect the public health, accordingly.

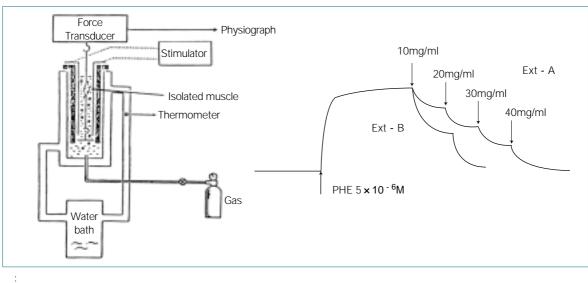
Keywords : Functional food; Effectiveness; Safety 핵심용어: ; ; 가가

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1. (Yohimbin) 가 가 가 가 가 가 가가 1 5 (2) 가 가 가 1. (1~3), 1) 2. 가 , 가 가 , 가 가 2) (1) 3. 1) 가 "sexual wellness", "sexual health" 가



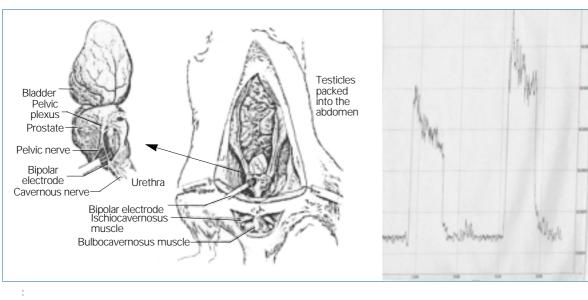
.: (phenylephrine; PHE, 5 × 10⁻⁶ M) (Ext - 1) 1mg/ml , 40mg/ml 95% ...

2) , , . (1, 3, 4). (1).

4)

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(1)



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(2)(1).

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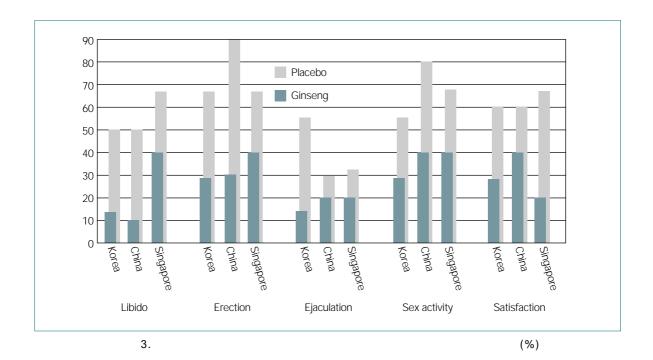
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Special Issue •

가 가 가 가 (4) 가가), (, 20 (2) 가 , 2.5 Cr , AIDS 가 (5) 가 가 , 가 (3)

0.7~0.8mm , 가 25~30cm/sec 가 3~5cm/sec 가 10% 가 가 15 IIEF(International Index of erectile function)가 5가 2) IIEF 5 가 IIEF - 5 (6). , 8~11 IIEF - 5 5`~7 12~16 , 17~21 가 1 가 1 가 , 5 가, 가 가 , RIGI scan, Rigi scan 가 가 70% 2cm 3cm, 3) 가 가 가 10% 가 60~70% 가



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Group n Drug Methods Α Ext - A Medication n

Group	n	Drug	Methods
А	n	Ext - A	Medication
В	n	Placebo	same methods

	-	Α	
, B			
		,	
		,	

- 1

3)

Group	n	Drug	Methods
А	n	Ext - A	Medications
В	n	Placebo	Same methods
С	n	Known drugs	Same/Dugs methods

3 Α , B , C

2.	(KRG)	, (trazodone) (%)			가		
	Parameter (N=90)	KRG (600mg/day)	Placebo (600mg/day)	Trazodone (25mg/day)			
	rning erection	13.3	3.3	3.3	(intervention)		
	ly detumescence	25.3	10.0	10.0			
	idity	50.0	30.0	30.0	가 .		
	nescence	53.5	23.3	30.0	가		
Libi		50.0	10.0	13.3	71		
	ient Satisfaction	43.3	13.3	30.0			
	tner Satisfaction	10.0	0.0	3.3	(selection bias)		
Pati	ient End result	60.0	30.0 30.0 プト				
Int J Imp	ootence Res 1995; 7: 18	1				가	
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	가				71		
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가		가					
	(single - blind),						
		ble - blind)		1)			
		가			가		

Nitric oxide가 (4, 7).

 Choi YD, Rha KH, Choi HK. In vitro and In vivo experimental effect of the korean red ginseng on erection. J Urol 1999; 162: 1508 - 11

 Choi HK, Seong DH, Rha KH. Clinical efficacy of Korean red ginseng for erectile dysfunction. Int J Impotence Res 1995; 7: 181 - 6

 Choi YD, Xin ZC, Choi HK. Effect of Korean red ginseng on the rabbit corpus cavernosal smooth muscle. Int J Impotence Res 1998; 10: 37 - 43

- 4. Kim N, Azadzoi KM, Goldstein I, Tejada IS. A nitric oxide like factor mediate nonadrenergic - noncholinergic neurogenic relaxation of penile corpus cavernosum smooth muscle. J Clin Invest 1991; 88: 112 - 8
- 5. Kim C, Choi H, Kim CC, Kim JK, Kim MS. Influence of ginseng on mating behavior of male rats. Am J Chin Med 1976; 4: 163 8
- Jones JK. Adverse drug reaction in community health setting:
 Approaches to recognizing counselling, and reporting. Fam Commun Health 1982; 5: 58 - 67
- Rajfer J, Aronson WJ, Bush PA, Dorey FJ, Ignarro LJ. Nitric oxide as a ediator of relaxation of the corpus cavernosum in response to nonadrenergic noncholinergic neurotransmission. New Engl J Med 1992; 326: 90 - 4

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