

le tre p che impegnano l'andrologo  
priapismo | prostatite | peyronie

# Priapismo e psicofarmaci

*Dott. G. Pretti*

*Dott. F. Varvello*



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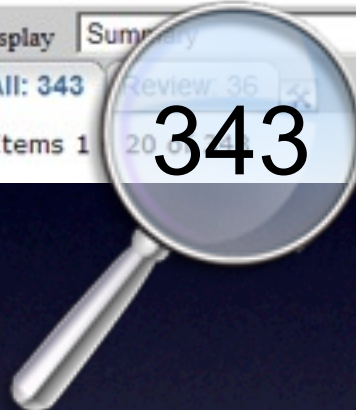
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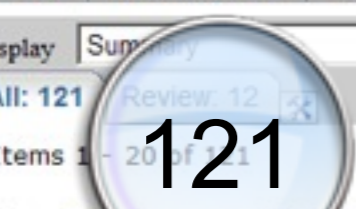
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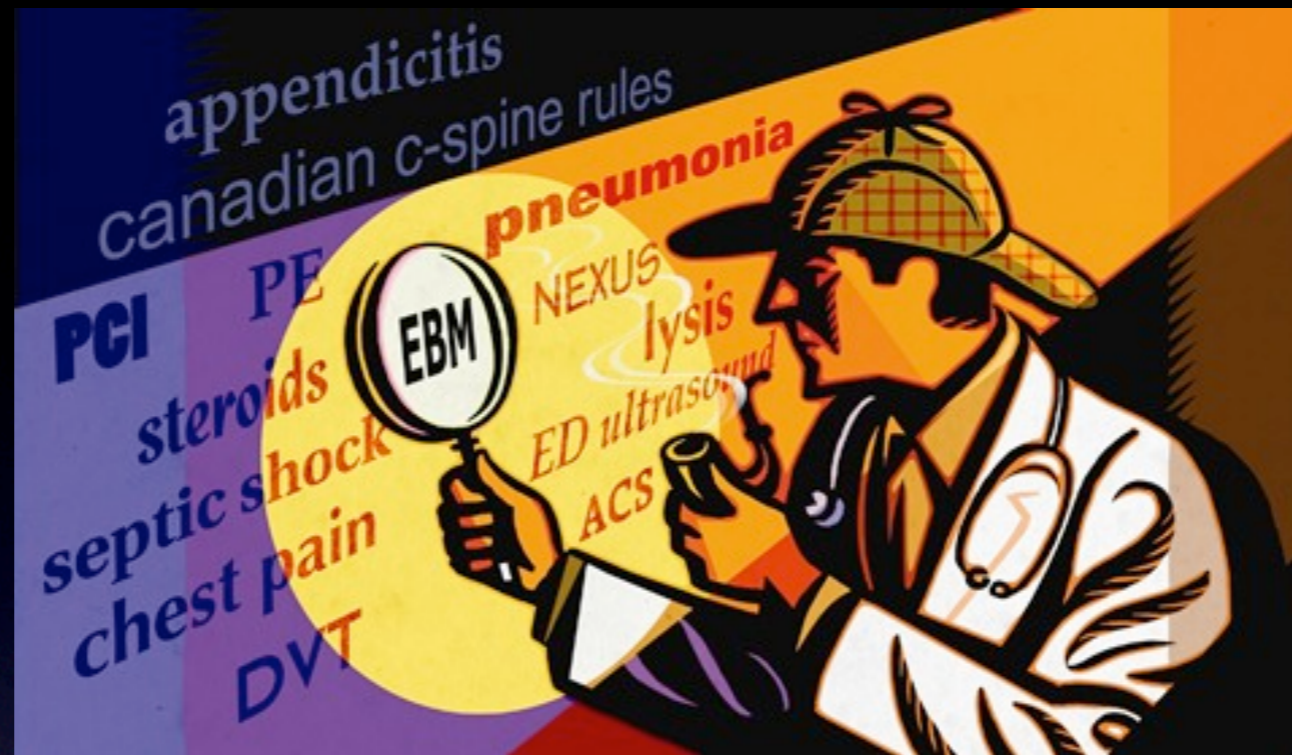
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Case reports

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# AMERICAN UROLOGICAL ASSOCIATION GUIDELINE ON THE MANAGEMENT OF PRIAPISM

DROGO K. MONTAGUE (CO-CHAIR),\* JONATHAN JAROW (CO-CHAIR),† GREGORY A. BRODERICK,‡  
ROGER R. DMOCHOWSKI,§ JEREMY P. W. HEATON,|| TOM F. LUE,¶ AJAY NEHRA,\*\*  
IRA D. SHARLIP,†† AND MEMBERS OF THE ERECTILE DYSFUNCTION GUIDELINE UPDATE PANEL‡‡

*History.* Understanding the history of the episode of priapism is important because the history and etiology may determine the most effective treatment. Historical features that should be identified are:

- Duration of erection
- Degree of pain (ischemic priapism is painful while non-ischemic priapism usually is not)
- Previous history of priapism and its treatment
- Use of drugs that might have precipitated the episode. Drugs that have been associated with priapism are antihypertensives; anticoagulants; antidepressants and other psychoactive drugs; alcohol, marijuana, cocaine and other illegal substances; and vasoactive agents used for intracavernous injection therapy such as alprostadil, papaverine, prostaglandin E<sub>1</sub>, phentolamine and others
- History of pelvic, genital or perineal trauma, especially a perineal straddle injury
- History of sickle cell disease or other hematologic abnormality

# Escludendo il priapismo indotto da sostanze vasoattive intracavernose...



207 pz

**28% dei casi** associati ad assunzione di fenotiazine e trazodone

Kulmala, Eur Urol 1995



34 pz

**26% dei casi** utilizzavano fenotiazine

Macaluso, Urology 1985

Rauno Kulmala<sup>a</sup>  
 Timo Lehtonen<sup>b</sup>  
 Pentti Nieminen<sup>c</sup>  
 Teuvo Tammela<sup>a,d</sup>

## Aetiology of Priapism in 207 Patients

Variable	Priapism		Control		Total
	n	%	n	%	
Smoking	91	63.2	53	36.8	144
Abuse of alcohol	60	80.0	15	20.0	75
Psychopharmaceuticals	46	86.8	7	13.2	53
Psychopharmaceuticals + abuse of alcohol	30	93.8	2	6.2	32
Antihypertensive drugs	12	80.0	3	20.0	15
Anticoagulants	6	85.7	1	14.3	7
Testosterone	2	66.7	1	33.3	3
All patients	164	50.2	163	49.8	327

Variable	Adjusted		
	odds ratio	95% CIE	p value
Abuse of alcohol	4.5	2.3-8.8	<0.001
Psychopharmaceuticals	7.2	3.0-17.2	<0.001
Antihypertensive drugs	6.5	1.7-24.7	0.003
Anticoagulants	12.4	1.4-107.5	0.005
Lumbar disc pain	4.3	1.7-10.9	0.002
Chronic prostatitis	10.7	1.2-93.9	0.010

# Antipsicotici convenzionali

## **FENOTIAZINE**

Clorpromazina (*Largactil, Prozin*)

Tioridazina (*Melleril*)

Flufenazina (*Moditen*)

Perfenazina (*Trilafon*)

Mesoridazina (*Serentil*)

Tiotixina (*Navane*)

## **BUTIRROFENONI**

Aloperidolo (*Serenase, Haldol*)

Zuclopentixolo (*Clopixol*)

# Antipsicotici atipici

Clozapina (*Leponex*)

Risperidone (*Risperdal, Belivon*)

Olanzapina (*Zyprexa*)

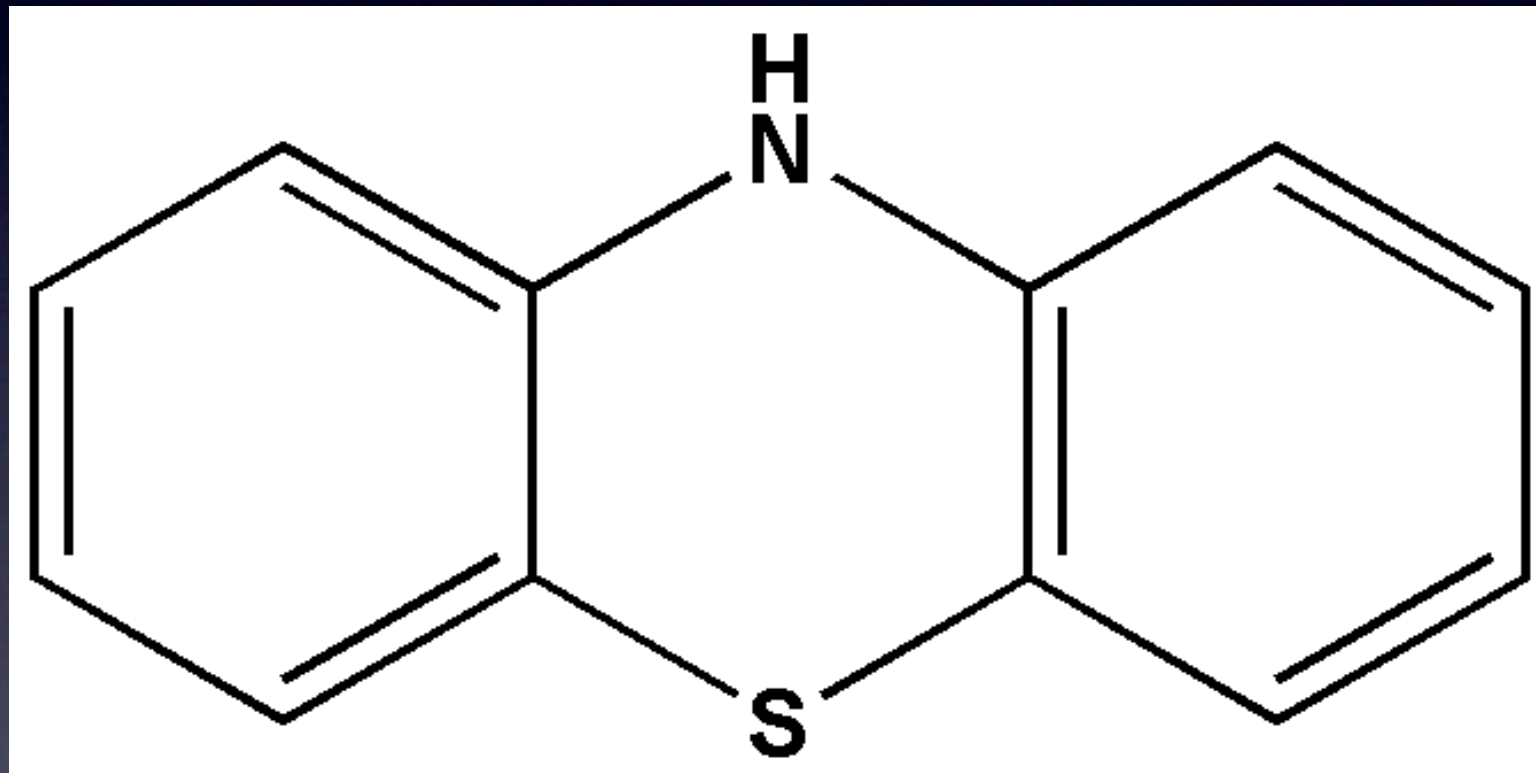
Quetiapina (*Seroquel*)

Aripiprazolo (*Abilify*)

Ziprasidone (*Geodon*)

# FENOTIAZINE

Clorpromazina Tioridazina Flufenazina Perfenazina Mesoridazina Tiotixina





# Idiosincrasia

Il priapismo, come effetto collaterale degli psicofarmaci, non è correlato né alla **dose** utilizzata né alla **durata** del trattamento

# Suscettibilità

Sono descritti pazienti che sviluppano il priapismo in seguito all'utilizzo di **diversi psicofarmaci**

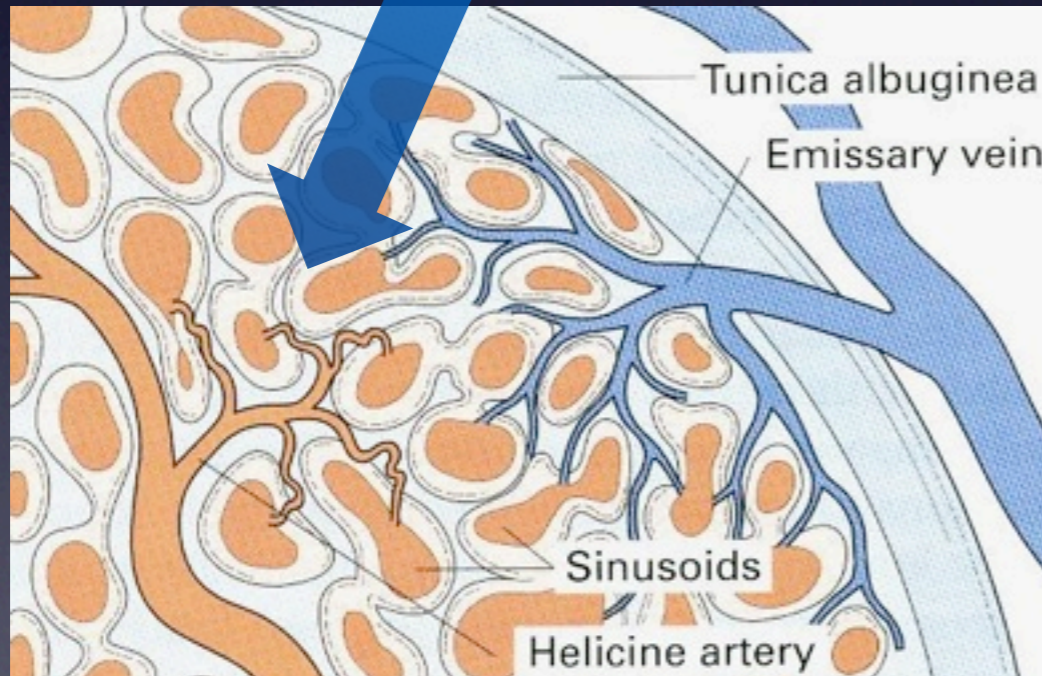
Compton, J Clin Psychiatry 2001  
Reeves, Pharmacotherapy 2002  
Du Toit, Can J Psychiatry 2004

# Prodromi

Prima dello sviluppo del priapismo  
in molti casi sono descritti **episodi ricorrenti di  
erezioni prolungate non dolorose**

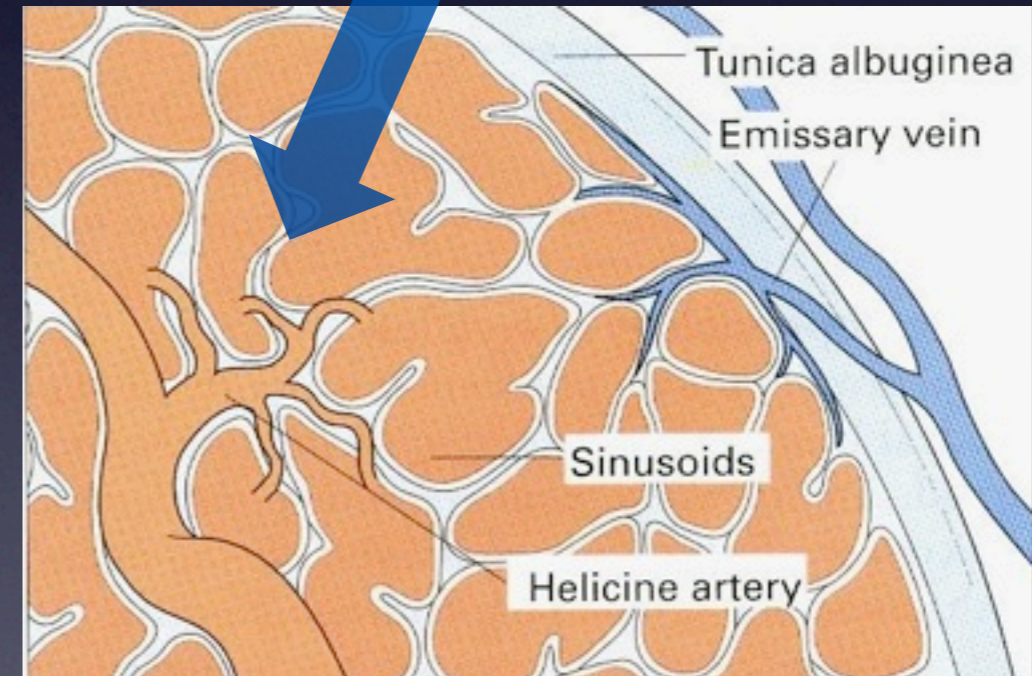
# Fisiopatologia

**Simpatico**  
(attività  $\alpha$ -adrenergica)



Flaccidità

**Parasimpatico**



Erezione

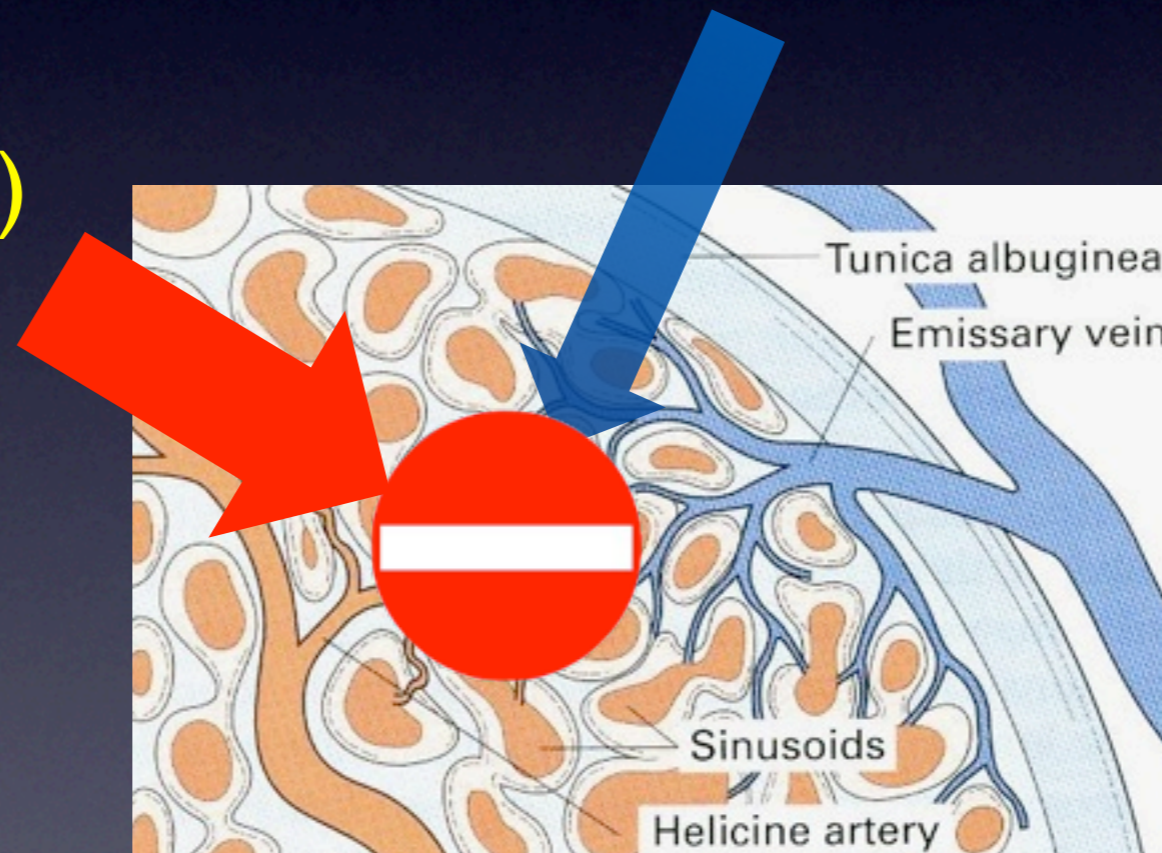
# Fisiopatologia

Simpatico

(attività  $\alpha$ -adrenergica)

Antipsicotici

(attività  $\alpha$ -bloccante)

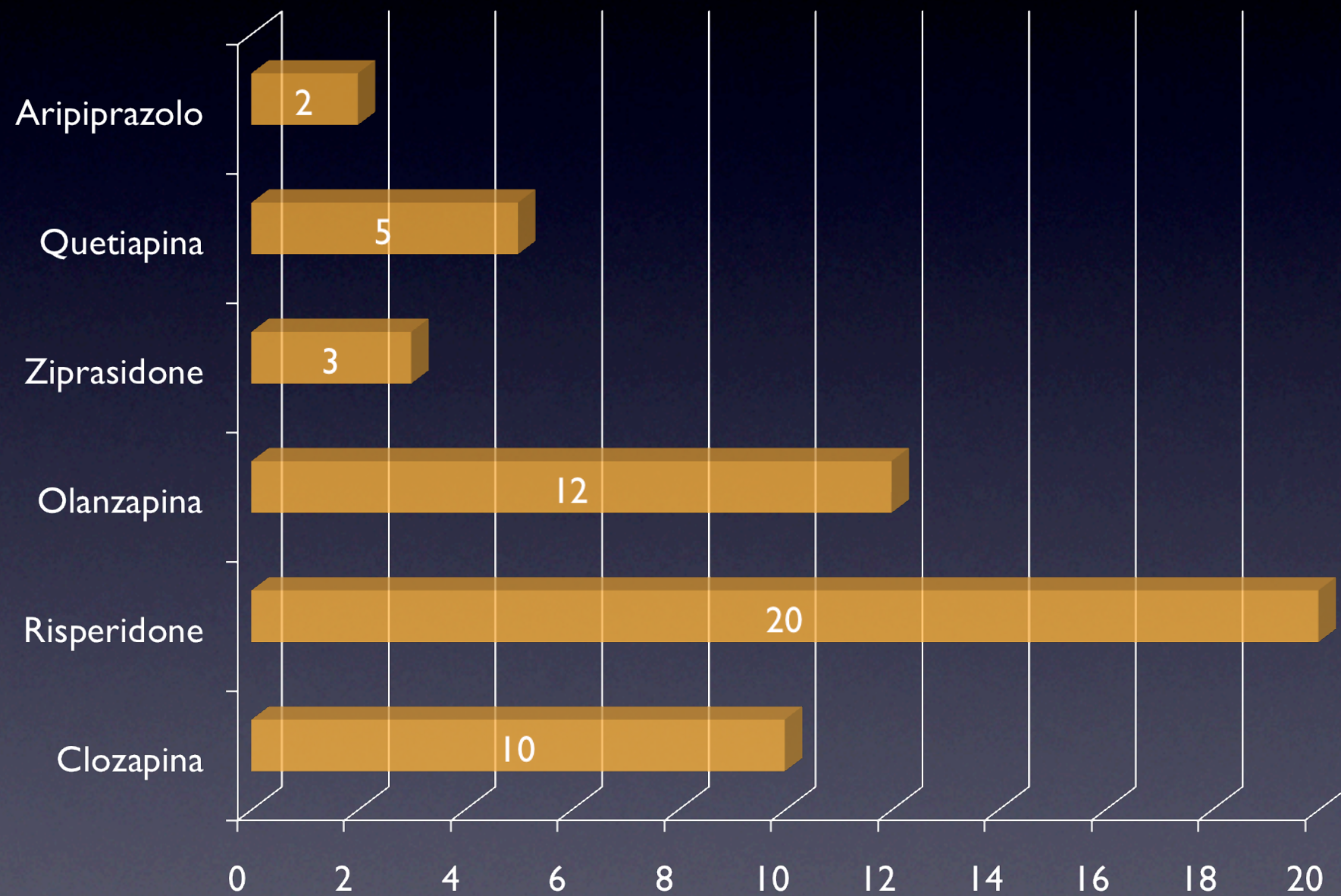


Flaccidità

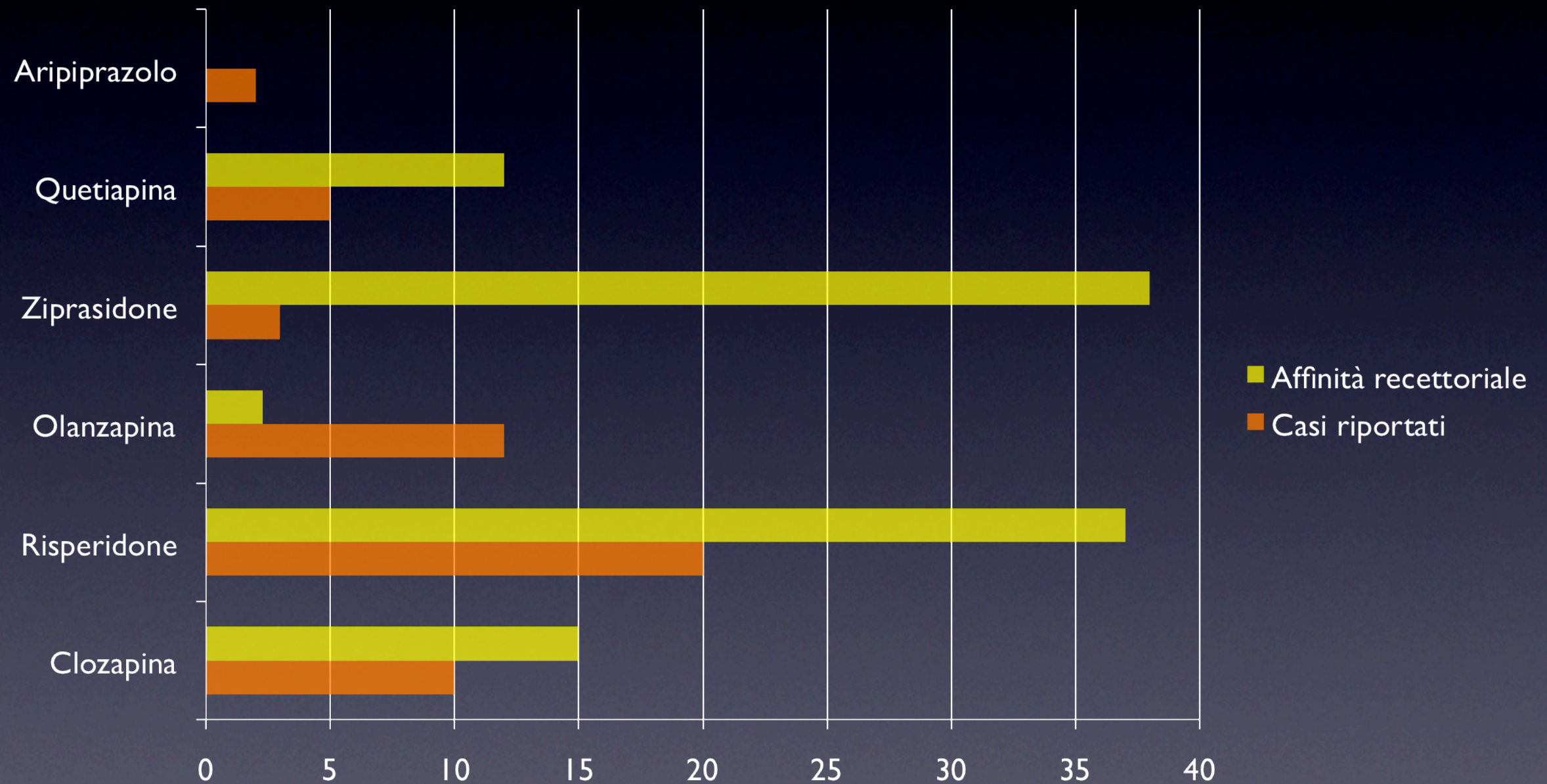
# Affinità per il blocco dei recettori $\alpha_1$ da parte dei farmaci antipsicotici

Farmaco	Affinità
Olanzapina	2,3
Loxapina	3,6
Aloperidolo	5,9
Tiotixene	9,1
Flufenazina	11
Quetiapina	12
Clozapina	15
Tioridazina	20
Risperidone	37
Ziprasidone	38
Clorpromazina	38
<b>Prazosina</b>	<b>250</b>

# Casi di priapismo da antipsicotici atipici riportati in letteratura



# Casi di priapismo da antipsicotici atipici riportati in letteratura



Sood, Int Clin Psychopharmacology 2008  
Richelson, J Clin Psychiatry 1999



# Antidepressivi

Trazodone (*Trittico*)

Nefazodone (*Reseril*)

Fluoxetina (*Prozac*)

Bupropione (*Elontril, Zyban*)

Citalopram (*Seropram*)

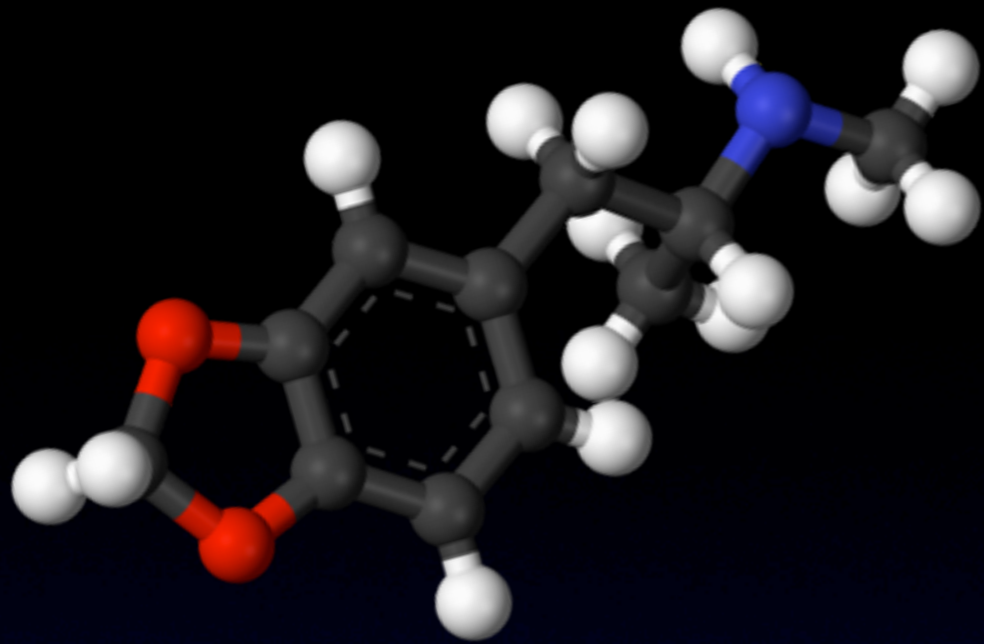
Sertralina (*Zoloft*)

Venlafaxina (*Efexor*)

# Antidepressivi

Blocco dei recettori  $\alpha_1$ -adrenergici

Stimolazione dei recettori 5-HT<sub>3</sub>



# MDMA



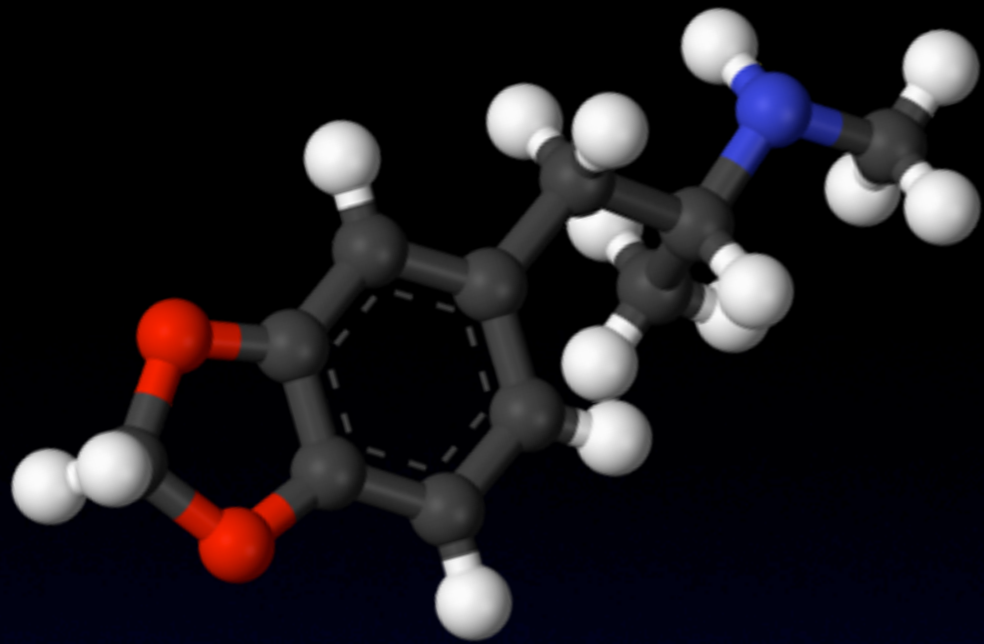
Physiology & Behavior 83 (2004) 291–307

**PHYSIOLOGY  
&  
BEHAVIOR**

## Dopamine and serotonin: influences on male sexual behavior

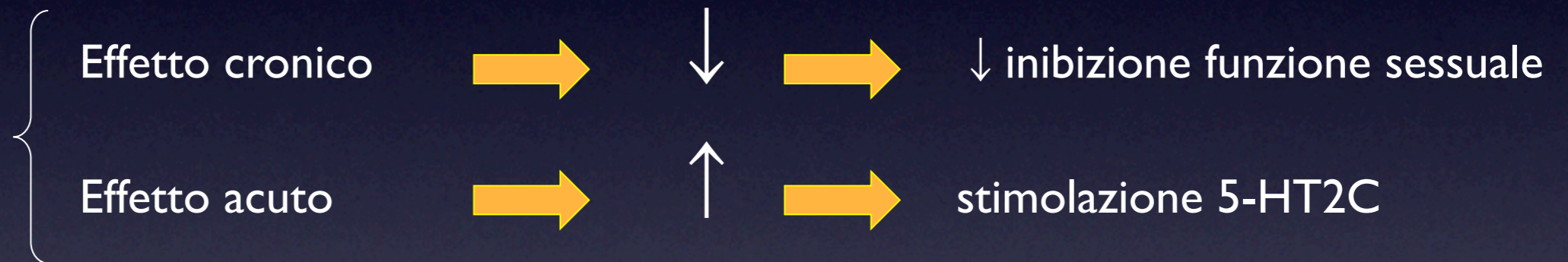
Elaine M. Hull\*, John W. Muschamp, Satoru Sato

*Department of Psychology, University at Buffalo, State University of New York, Buffalo, NY 14260-4110, USA*



# MDMA

## Serotonina




## Dopamina





# Marijuana



 ELSEVIER

Behavioural Brain Research 169 (2006) 274–281

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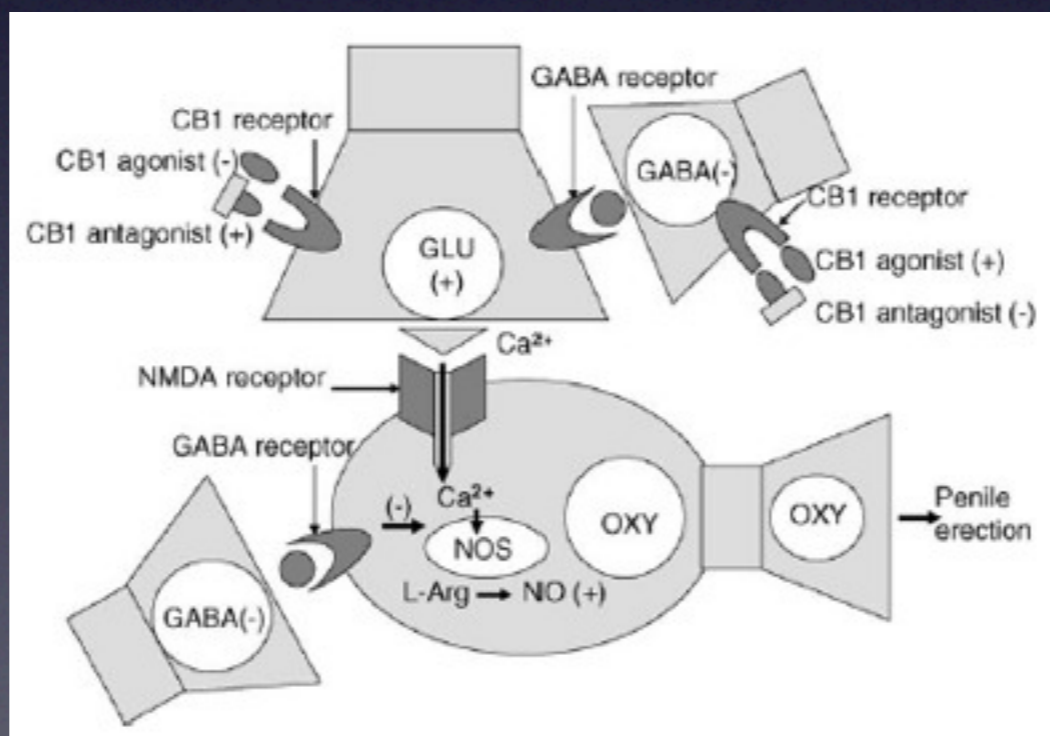
www.elsevier.com/locate/bbr

Research report

The cannabinoid CB1 receptor antagonist SR 141716A induces penile erection by increasing extra-cellular glutamic acid in the paraventricular nucleus of male rats

Salvatora Succu, Maria Stefania Mascia, Fabrizio Sanna, Tiziana Melis, Antonio Argiolas, Maria Rosaria Melis\*

*Bernard B. Brodie Department of Neuroscience and Centre of Excellence for the Neurobiology of Addictions, University of Cagliari, S.P. Sestu-Mosserrato, Km 0.700, 09042 Mosserrato, Italy*





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[Priapism associated with intranasal cocaine abuse.](#)

Fiorelli RL, Manfrey SJ, Belkoff LH, Finkelstein LH.

J Urol. 1990 Mar;143(3):584-5.

PMID: 2304177 [PubMed - indexed for MEDLINE]

[Priapism associated with chronic cocaine abuse.](#)

Jiva T, Anwer S.

Arch Intern Med. 1994 Aug 8;154(15):1770. No abstract available.

PMID: 8042894 [PubMed - indexed for MEDLINE]

[Priapism associated with intracavernosal injection of cocaine.](#)

Mireku-Boateng AO, Tasié B.

Urol Int. 2001;67(1):109-10.

PMID: 11464133 [PubMed - indexed for MEDLINE]

[Priapism associated with the use of topical cocaine.](#)

Rodríguez-Blázquez HM, Cardona PE, Rivera-Herrera JL.

J Urol. 1990 Feb;143(2):358.

PMID: 2299732 [PubMed - indexed for MEDLINE]

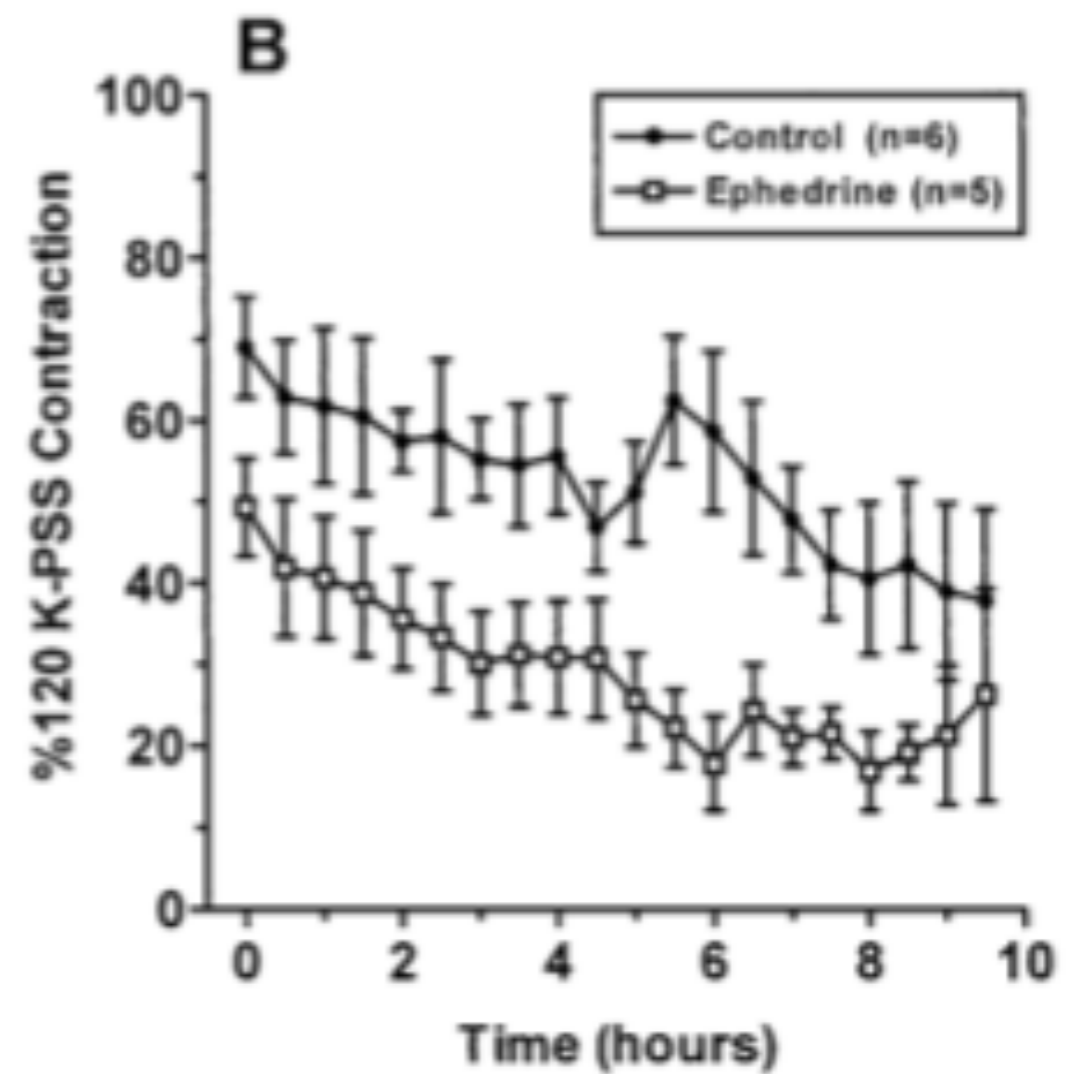
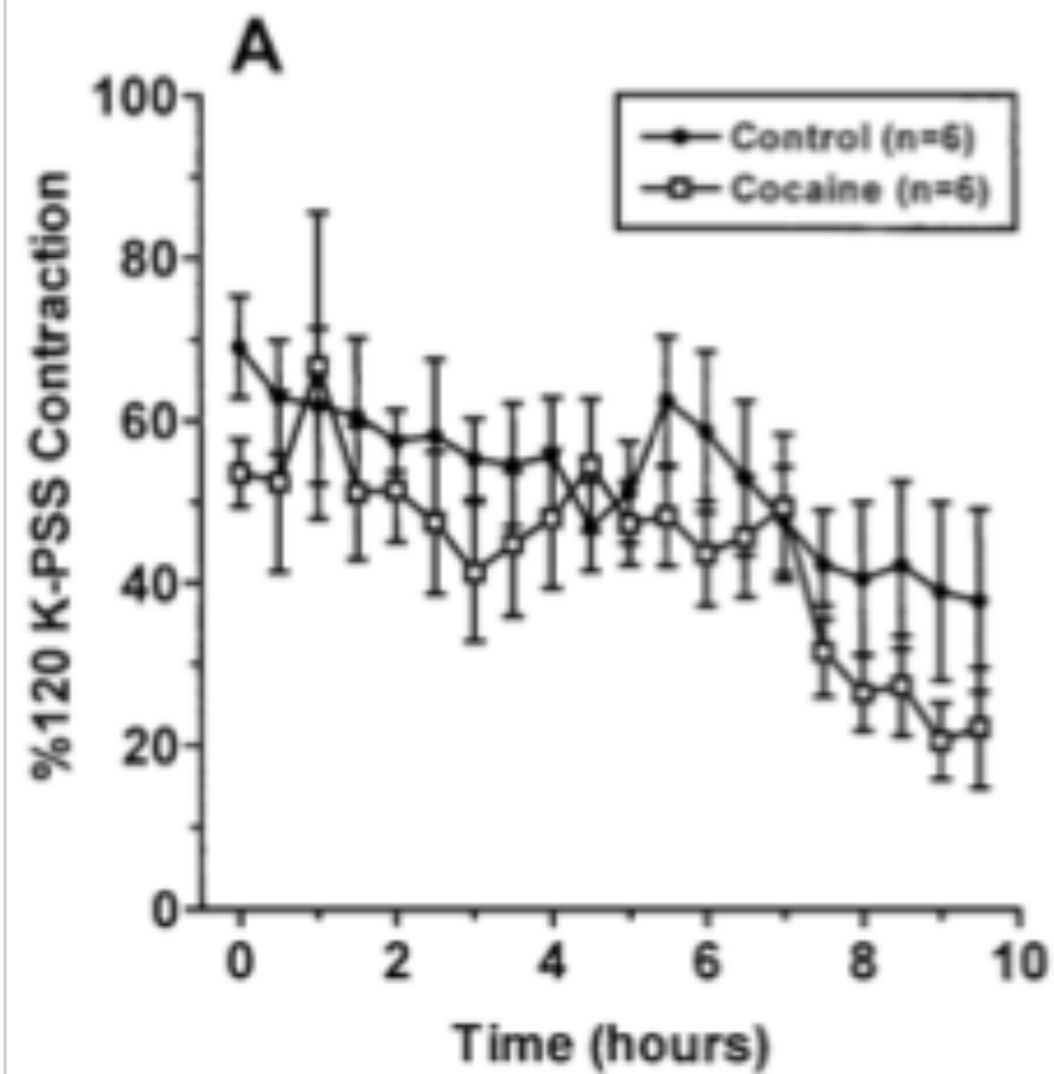
[Intraurethral cocaine administration.](#)

Mahler JC, Perry S, Sutton B.

JAMA. 1988 Jun 3;259(21):3126. No abstract available.

PMID: 3367482 [PubMed - indexed for MEDLINE]

RICARDO MUNARRIZ, JONATHAN HWANG, IRWIN GOLDSTEIN, ABDULMAGED M. TRAISH, AND NOEL N. KIM



Screening for psychoactive drugs and urine toxicology may be performed (if suspected) because standard doses of antidepressants and other psychoactive drugs, as well as overdoses of legal and illegal drugs, may cause priapism.