EJACULATORY DYSFUNCTION

Essay

Submitted for Partial Fulfillment of the Master Degree in Urology

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2010

Acknowledgment

First thanks are all to Allah, for blessing this work until it has reached its end, as a part of this generous help throughout my life.

I would like to direct special thanks to Prof. Dr. Mohamed Tarek Mohamed Zaher, professor of urology, faculty of medicine, Ain shams university, for the great support and encouragement he have me throughout the whole work. It is a great honor to work under his guidance and supervision.

Also, I am greatly honored to express my thanks to Dr. Khaled Mokhtar Kamal, Lecturer of urology, faculty of medicine, Ain shams university, from whom I received faithful supervision and continuous guidance throughout this work.

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List of Abbreviations

AE	Anemission
AUA	American Urological Association
BNI	Transurethral Bladder Neck Incision
BPH	Benign Prostatic Hypertrophy
CGMP	Cyclic Guanine Monophosphate
CrCl	Creatinine Clearance
DE	Delayed Ejaculation
ED	Erectile Dysfunction
EDO	Ejaculatory Duct Obstruction
FSH	Follicle Stimulating Hormone
GABA	Gamma Amino Byuteric Acid
GSSAB	Global Study of Sexual Attitudes and Behaviors
IELT	Intravaginally Ejaculatory Latency Time
ISSM	International society for Sexual Medicine
L	Lumbar vertebra
PDE	Phosphodiasterase-type 5

PE	Premature Ejaculation
PEPA	Premature Ejaculation Prevalence and Attitudes
PO	Per/Oral
RE	Retrograde Ejaculation
S	Sacral vertebra
SSRI	Selective Serotonine Reuptake Inhibitors
T	Thoracic vertebra
TRUs	Transrectal Ultrasound
TURP	Transrurethral Resection of Prostate

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Introduction

Introduction:

Ejaculation is defined as the expulsion of seminal fluid through the urethra and closely associated with orgasm **(Coolen, 2004)**.There is three basic mechanism involved in normal ante- grade ejaculation: Emission, ejaculation and orgasm **(McMahon et al., 2004)**.

The regulation of the ejaculatory reflex handled at the spinal cord level requires neurochemical coordinated interrelationships to take place at different levels of neural axis **(Giuliano and Clement, 2005a)**. Several neurotransmitter systems are implicated, with the central serotonergic and dopaminergic neurons playing aprimary role **(Giuliano and Clement, 2005b)**.

Most prevalent male sexual disorders are ejaculatory dysfunction, which are divided into 4 categories: Premature ejaculation, delayed ejaculation, retrograde ejaculation, anemission **(Rosen RC, 2000)**.

From an epidemiological perspective; premature ejaculation (PE) has been reported as the most common male sexual dysfunction with overall prevalence rates at around 30%-40% of males **(Laumann et al., 2005)**.

The etiology of ejaculatory dysfunction is numerous and multifactorial: Psychogenic, congenital, iatrogenic, neurogenic, infectious, endocrinology, iatrogenic factors, secondary to medications may all play a role **(Rosen, 2003)**.

American urological association (AUA) guideline on the diagnosis of premature ejaculation which is based on sexual history alone; a detailed sexual history should be obtained from all patients with ejaculatory complaints, the pharmalogical management of premature ejaculation is recommended **(Montague et al., 2004)**.

Treatment of premature ejaculation was considered to be a psychological rather than pathological problem. Selective serotonin reuptake inhibitors (SSRIs) like Paroxetine are reported to be effective for treating premature ejaculation **(Rosen, 2004)**.

Aim of Essay

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The aim of this essay is to give a comprehensive review on anatomy, Neuroanatomy, neurophysiology of emission and ejaculation with guideline on etiology, diagnosis and treatment of ejaculatory dysfunction.

Anatomy

Neuroanatomy and Neurophysiology of Emission and Ejaculation

Anatomy of Emission and Ejaculation

The male reproductive tract can be divided into two functional parts. The testicles or primary sex organs are responsible for gamete and hormone production the secondary sex organs or urogenital duct system function in gamete transport and delivery. This system of ducts (epididymis, vas deferens, and seminal vesicle) shares a common embryological origin derived from the mesonephric or wolffian ducts. **(Hall and Oates, 1991)**.

Anatomy of vas deferens

The vas deferens is a dense tubular structure, extended from the tail of the epididymis to the prostate; there it joins the duct of the seminal vesicle to form the ejaculatory duct **(Hackett and Waterhouse, 1973)**.

The vas can be divided into five portions:

1-The sheathless convoluted epididymal portion contained within the tunica vaginalis

2-The scrotal portion; where it runs posterior to the vessels of the cord

3-The inguinal division; where it runs in the inguinal canal and emerges to the pelvis lateral to the inferior epigastric vessels

4-The retroperitoneal (pelvic) portion; at the inguinal ring, it diverges from the testicular vessels and passes medial to all structures of the pelvic sidewall

5-The ampulla; the last 5 cm are dilated tortuous at the base of prostate posteriorly. Most of the sperms within each ejaculate are stored in the terminal vas and ampulla **(Murphy and Lipschultz, 1998)**.

Anatomy of the seminal vesicle

The seminal vesicles are two large lobulated convoluted glandular sacs consisting of hallow tubes approximately 15 cm long. The seminal vesicles are 4-10 cm in length, 1 cm in width and 3-5 cm in diameter, in normal adults. The volume capacity of the seminal vesicles averages 4-13 ml **(Coffey, 1988)**.

The right gland is slightly larger than the left in one third of me, but the size of both decreases with age.