Safety and Efficacy of Dapoxetine compared to Silodosin and Citalopram in treatment of premature ejaculation

Protocol of Thesis

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INTRODUCTION

Premature ejaculation(PE) is a common sexual problem(1,2). Many epidemiological reports have shown that approximately 20–30% of men have complaints of PE(3). As prevalence ofintravaginal ejaculation latency time (IELT) of 1 min is approximately 1–3%(4).

its prevalence varies widely depending on definitions of PE and the manner in which the prevalence data was gathered.PE is significantly related to high levels of distress, low satisfaction with sexual intercourse and reduced sexual self-confidence and overall quality of life. For female partners, PE is a significant cause of distress(5).

Treatment for PE has included oral medication, such as SSRI, topical agents and behavioraland cognitive therapy(6).

Silodosin is a new highly selective a1A-adrenoceptor antagonist, and clinical data show significant clinical efficacy for LUTS(7).

However, in these studies, abnormal ejaculation was found in a relatively higher percentage of participants. This suppression of ejaculation by silodosin has been confirmed in well-designed studies with volunteers. Furthermore, safety even for the elderly was well established in treatment data for LUTS. These observationssuggest that silodosin might be effective treatment for PE(8).

Recently, dapoxetine, a novel fast acting SSRI, was approved for the on-demand treatment of PE in several countries.However, SSRI have possibleSSRI-related adverse effects. Although, the safety and efficacy of some treatments for PEhave been reported safer and more effective treatment options are still required.but have some adverse effects, including postural hypotension and ejaculatory dysfunction(9).

AIM OF THE Work

The current study is designed to evaluate effectiveness and safety of dapoxetinein treatment of premature ejaculation in compared to silodosin and Citalopram in randomized Controlled Study .

Participants AND METHODS :

This study will be a **randomized controlled study** done by sealed envelope at the Urology department, Beni-Suef University Hospital after obtaining the approval of the Scientific Research Ethics Committee of the Faculty of Medicine, Beni-SuefUniversity (from June 2024 to July 2024).

3.1. PARTICIPANT:

The study population will be patients complaining of pre-mature ejaculation who will be recruited from Urology department at **Beni-SuefUniversity** Hospital.

3.1.1. Sample Size:

F tests - ANOVA: Fixed effects, main effects and interaction (11).

Analysis: A priori: Compute required sample size

Input: Effect size f = 0.25

α err prob = 0.05

Power (1-β err prob) = 0.95

Numerator df = 10

Number of groups = 4

Number of covariates = 1

Output: Noncentrality parameter λ = 25.0000000

Critical F = 1.8546920

Denominator df = 395

Total sample size = 400

Actual power = 0.9504191

Participants will be selected according to the following inclusion and exclusion criteria:

3.1.2. Inclusion Criteria: (12).

1) Premature Ejaculation (PE) diagnosed by Diagnostic and Statistical Manual of Mental Disorders, fourth edition, text revision (DSM-IV-TR) criteria.
2) Stable heterosexual, monogamous relationships more than 3 months.
3) Age of 20 years or older.
4) Patient acceptance to join the study after signing an informed consent.

3.1.3. Exclusion Criteria:

1) Patients who received any medication for premature ejaculation during the last 4 weeks.
2) Patients on sex hormones supplementation.
3) History of physical or psychological disorder (patient or partner).
4) Antidepressant therapy, local anesthetic spray, intra-cavernosal injection or psychotherapy within 4 weeks.
5) History of alcohol or drug abuse.
6) Hypotensive patients.

3.2. METHODS

The 400 subjects were divided into 4 groups:

- **Group A:** 100 male patients with premature ejaculation Citalopram**.**
- **Group B:** 100 male patients with premature ejaculation (on demand) Silodosin 8 mg.
- **Group C:** 100 male patients with premature ejaculation (on demand)dapoxtine 30 mg.
- **Group D :** 100 male patints with premature ejaculation (on demand)dapoxetine 60 mg.

All members of the study were subjected to the following:

A) A detailed history taking: Demographic data such as age, course, duration of the disease, medical history and history of drugs that may interact with silodosin or dapoxetine or Citalopram .

B) Procedure:

Participants were randomly assigned to four equal groups (n = 100 each) using a computer-generated random s and centralized randomization:

- Group A: Received Citalopram hydrobromide, starting with 10 mg once daily for 1 week, followed by 20 mg once daily for 10 weeks, and 10 mg daily during the final week (tapered).
- Group B: Received Silodosin 4mg, administered orally once daily.
- Group C: Received Dapoxetine hydrochloride 30 mg, taken 2 hours before intercourse, on-demand, minimum of 8 times/month for 3 months.
- Group D: Received Dapoxetine hydrochloride 30 mg, administered daily.

C) Measurements

1-All patient in this study willbe evaluated according to IELT, measured using a watch (not a stop watch) by the patient. IELT refers to the time between the start of vaginal intromission and the start of intravaginal ejaculation or sense of orgasm pre- and post-treatment.

2- All patients in this study were evaluated pre and after treatment according to premature ejaculation profile questionnaire (PEPQ) to determine the exact effect of the drugs in this study either silodosin or dapoxtine or citalopram . This questionnaire, developed by **Patrick et al** (10).assesses four domains of PE; • Perceived control over ejaculation. • Personal distress related to ejaculation. • Interpersonal difficulty related to ejaculation. •Satisfaction with sexual intercourse. Each domain is assessed by using a single question, and the response is rated on a five-point scale from 0–5; higher scores indicate better functioning.

3.2. STATISTICAL DATA ANALYSIS:

Numbers and percentages of patients will be given for categorical variables, which were then compared across groups using Pearson's Chi-square test. Group differences in continuous variables were determined by calculating their means±standard deviations, and medians (interquartile range) according to their normal distribution; then, using theone way ANOVA or kruskalwallis test according to the normality distribution , we compared the groups according to the distribution of the scale variables. Pearson's and Spearman's correlations will employed in the correlation of continuous variables according to the normality distribution. We will use IBM's SPSS version 20 statistical software for our

analysis, and our alpha was set at 5 Percent. Thus, a P value of 0.05 was considered statistically significan.

3.3. ETHICAL CONSIDERATION:

This study protocol will be revised and approved by the research ethics committee of the Faculty of Medicine of Beni-Suef University. The study followed the declaration of Helsinki for research ethics standards.

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