Psychopharmacology

Efficacy and Safety of Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) in Chronic Pain Conditions Compared with Placebo in Maintaining Functional Improvement and Quality of Life: A Systematic Review

Dr Betsy Marina Babu[1], Dr Gaurav Uppal[2], Dr Sathyan Soundarajan[3], Dr Rohan Chauhan[4] and Dr Aisha Mohammed Zein Ali[5]

[1]London and KSS School of Psychiatry, London, United Kingdom; [2]Satyam Hospital, Ludhiana, India; [3]Wrexam Maelor Hospital, North Wales, United Kingdom; [4]Fortis Hospital, Ludhiana, India and [5]Alamal Hospital, Dubai, UAE

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Aims: With this systematic review, an attempt will be made to systematically compare the efficacy and side effects of Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs) in Chronic Pain Conditions in terms of functional improvement and quality of life with placebo.

Methods: The relevant studies were included after conducting a literature search in OVID, PubMed/MEDLINE, EMBASE/SIGLE, CINAHL, and Web of Science. Randomized controlled trials that compared SNRIs in chronic pain were included in the review. In the assessment of study quality, the Cochrane Risk-of-Bias tool was used. A number of data extractors and analysts were used in the study so as to reduce possible bias in the study results.

Results: Duloxetine appeared to be the SNRI with the best therapeutic efficacy profile across different chronic pain types and aetiologies such as osteoarthritis, fibromyalgia, and chronic low back pain. It showed reasonable effectiveness in alleviating pain magnitude and enhancing motor activity. The results were consistent between standard and higher doses of single administration 60 mg. Duloxetine demonstrated a significant reduction in pain when compared with placebo. An improvement in functional status and quality of life measured through self-reported scales was also noted. This trend was more pronounced in the treatment of the patients on SNRI compared with those on placebo.

Conclusion: Duloxetine appears to be effective for chronic pain conditions and may help reduce pain intensity, increase functional status and improve the quality of life. Even though rigorous trials indicate that these drugs are superior to placebo after 8–16 weeks, long-term effect and safety profiles are not very clear, and more long-term studies are needed to understand the durability and application of the drugs in clinical practices. Further research should prospectively investigate the efficacy in long-term pain, different comorbid conditions, and include predictors of SNRI response.

Abstracts were reviewed by the RCPsych Academic Faculty rather than by the standard *BJPsych Open* peer review process and should not be quoted as peer-reviewed by *BJPsych Open* in any subsequent publication.

Comparative Efficacy and Safety of Sildenafil, Tadalafil, Vardenafil, Mirodenafil, Coenzyme Q, and Testosterone in the Treatment of Male Sexual Dysfunction: A Systematic Review and Meta-Analysis

Dr Gaurav Uppal[1], Dr Ashok Shenoy[2], Mr S Sayan[3], Dr Betsy Marina Babu[4] and Dr Asha Devi Dhandapani[5]

[1]Satyam Hospital, Ludhiana, India; [2]Kasturba Medical College, Mangalore, India; [3]Manipal University, Jaipur, India; [4]London and KSS School of Psychiatry, London, United Kingdom and [5]BCUHB, Wrexham, United Kingdom

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Aims: This study through systematic review approaches and meta-analysis aimed to determine safe drug options for treating male sexual dysfunction due to erectile dysfunction by comparing sildenafil, tadalafil, vardenafil, mirodenafil, coenzyme Q and testosterone.

Methods: Systematic review methodology was used to retrieve data from complete database searches done in PubMed/MEDLINE, Embase, and Cochrane Central Register of Controlled Trials. Randomized controlled trials research designs with adult male participants who presented with erectile dysfunction on sildenafil, tadalafil, vardenafil, mirodenafil, coenzyme Q and testosterone were included as part of the review. The Cochrane Risk of Bias version 2.0 was utilized by two independent reviewers for assessing bias risk and extracting data. Sensitivity analysis was used to reduce the risk of bias.

Results: Phosphodiesterase inhibitors type 5 (PDE 5) are the most effective medications for erectile dysfunction (ED). Participants on sildenafil had effective erections between 77–84% at doses of 50–100 mg and tadalafil emerged as the "Weekend pill" because of its 36-hour maximum effect duration of action. The concentration-focused activity along with higher potency values of vardenafil make it superior to other PDE5 inhibitors. The newly developed therapeutic medication mirodenafil exhibits better PDE5 selectivity than existing drugs within its operational mechanism. Minor variations were noted as a cohort of participants preferred tadalafil above sildenafil. Testosterone supplementation is beneficial for when monotherapy with a PDE5 inhibitor has not been effective.

Conclusion: Being the first-line treatment for erectile dysfunction, PDE5 inhibitors should be prescribed based on the distinctive pharmacological attributes they possess. Medical treatment selection methods must take into account both the need of patients as well as their preference. The recent introduction of mirodenafil medication has opened new possibilities in the medical treatment of ED. The effectiveness of ED treatment brings optimistic outcomes to the quality of life to hundreds of millions of men across the globe and further studies will drive medical progress to improved treatment modalities including stem cell therapy.

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