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MP38-15 LEPTIN INDUCED LEYDIG CELL DIFFERENTIATION AND TESTOSTERONE PRODUCTION IS INFLUENCED DIFFERENTIALLY WITH RESPECT TO BMI

Deepa Seetharam*, Kajal Khodamoradi, Alexandra Dullea, Isabelle Catherine Issa, Natoli Farber, Himanshu Arora, Ranjith Ramasamy, Maimi, FL

INTRODUCTION AND OBJECTIVE: Leydig cells (LCs) are the primary source of testosterone (T) in men, and their dysfunction can lead to T deficiency. The growth and differentiation of LCs is influenced by the paracrine factors released by the testicular microenvironment (TME). Although it is well-known that obesity adversely affects male fertility and T production, the endogenous effects of Leptin on LSCs differentiation and the mechanism that are specific to patient's BMI are understudied. In the present study, we focused on understanding the association of leptin induced LSC differentiation in patients with different BMI.

METHODS: We obtained testicular biopsies from 15 men with testicular dysfunctions. The samples were subcategorized into obese (BMI >35), normal (BMI 25-30), and lean (BMI <25). Post isolation, culture, expansion and characterization of cells for the presence of each cell type validated (using Flow cytometry, western blot and Immunostaining), the cells were treated with different doses of Leptin ranging from 0, 1 and 10ng/ml for 24-96 hours respectively. To evaluate the effects of leptin with respect to BMI, qPCR, western blot and immune histochemistry were performed. Additionally, we subjected regular C57BL6 mice to lean, regular and obese diet to induce leanness and obesity before exposing them to Leptin at 0, 10 and 100ug/day/IP for 7 days. Total blood, brain, testis were isolated post euthanasia. All data were presented as the means ± SEM. The statistical significance between two groups were estimated by unpaired two-tailed t test.

RESULTS: The results of our study demonstrated that there is a strong relationship between BMI and leptin levels. Moreover, results from animal models emulated the observations made in data from human testis biopsies.

CONCLUSIONS: Our results demonstrated the influence of leptin on LSC differentiation in respect to BMI. Further studies are necessary to identify potential therapeutic effects of leptin treatment in improving fertility in the setting of leptin resistance and obesity.

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MP38-16 IS IT TIME FOR FPMRS TO PRESCRIBE VIBRATORS?

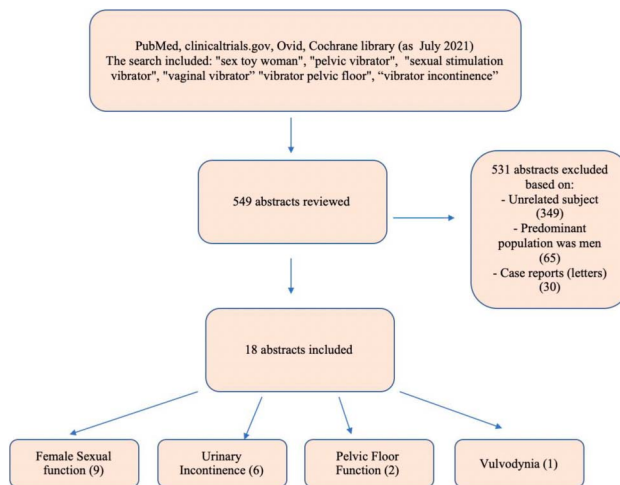
Alexandra Dubinskaya*, Beverly Hills, CA; Rainey Horwitz, St Louis, MO; Poone Shoureshi, Beverly Hills, CA; Jennifer Anger, La Jolla, CA; Victoria Scott, Karyn Eilber, Beverly Hills, CA

INTRODUCTION AND OBJECTIVE: Only recently, the stigma of women using vibrators for sexual pleasure has started to fade; however, it still remains a societal taboo and is surrounded with anxiety despite a variety of potential health benefits from its use. Due to the sensitive nature of the conditions Female Pelvic Medicine and Reconstructive Surgery (FPMRS) specialists treat, they are best suited to recommend vibrators to women as a health maintenance intervention. The aim of this study is to review the literature on women specific health benefits of vibrator use.

METHODS: We performed a systematic review of PubMed, clinicaltrials.gov, Ovid and the Cochrane databases from inception to July 2021. The search was based on the keywords: "sex toy woman", "pelvic vibrator", "sexual stimulation vibrator", "vaginal vibrator" "vibrator pelvic floor", "vibrator incontinence". Five hundred forty-nine relevant articles were identified. Studies that met inclusion criteria (original research, female subjects, vibrators studied for health benefit) were reviewed. Exclusion criteria included expert opinion or content was not related to our aims. A total of 18 original studies met the criteria and were reviewed in depth.

RESULTS: The identified studies were categorized into four themes: sexual function (9), pelvic floor muscles (2), incontinence (6), and vulvodynia (1). Among the identified studies, vibrators were considered as an accepted modality to enhance a woman's sexual experience and positively correlated with increased sexual desire, satisfaction, and overall sexual function. Vibratory stimulation improved pelvic floor muscle strength, vulvodynia, and improved incontinence.

CONCLUSIONS: Vibrators are not well studied and given the promising benefits demonstrated in the articles identified, more research efforts should be directed towards investigating their utility. Considering the potential pelvic health benefits of vibrators, their recommendation to women should be included in our pelvic floor disorder treatment armamentarium.



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MP38-17 CURRENT CLINICAL RESEARCH IN ERECTILE DYSFUNCTION

Arshia Sandozi*, Benjamin Shpeen, Ariel Schulman, Brooklyn, NY

INTRODUCTION AND OBJECTIVE: Erectile dysfunction (ED) affects more than half of men worldwide and is increasingly prevalent with age. More recent studies reveal larger numbers of young men diagnosed with ED. Etiologies vary, and include organic, iatrogenic, psychologic, and neurologic causes. The burdens of ED are medical,