

A Study Showing Importance of Nocturnal Penile Tumescence (Sleep Related Erections) to Differentiate between Psychogenic and Organic Erectile Dysfunction and Using NPT as Confidence Building Measure in Young Men Having Sexual Especially Performance Anxiety and Preference of Midnight/Early Morning Sex using REM Sleep Erections in Them.



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Introduction

The occurrence of erections during sleep (nocturnal penile tumescence) is a normal phenomenon and can be used as a measure of potency in young men (21-30 years) with erectile dysfunction. Patient's own subjective assessment of early morning and nocturnal erections or simple demonstration of increasing thickness of penis by paper roll (stamp) test can give him confidence and help him overcoming sex related anxiety.

Objective

To simplify differentiation between psychogenic and organic erectile failure (impotence) by assessment of sleep erections and using its presence as a tool to help young adults overcoming sexual especially performance anxiety by giving them confidence. Another objective is to increase awareness that to overcome stress during sex, it is easy to maintain erections after rest in sleep in midnight/early morning because of favorable physiology of REM sleep and androgen level at that time.

Material and Methods

From June 2016 to May 2019, at District hospital, Amritsar, Punjab, India, I worked as emergency medical officer, pediatrician

and many times attended medical camps in remote rural areas organized by NGOs like Rotary, lions club or school health services and met with youth of different social, economic, and cultural backgrounds. I observed that they had so many problems regarding sexuality, feeling shame talking about sex, believing myths and misinformation about erection, masturbation, premature ejaculation, performance etc. and spending money by going to unqualified quacks. They are not comfortable with family doctors many times and fall for ads-based quacks promising miracle care. In this study, after taking permission from ethical committee of DH Amritsar, I did interview and counselling of many of these young men from 21 to 30 years and documented 67 males with erectile dysfunction. I found that many of them unable to have sex after day's work, became anxious to get or maintain an erection. I asked about morning erections and 32 of them confirmed that they usually have urge to urinate with hard erections or simply erect penis on waking up. Rest of them were not sure or denied about sleep/on awakening erections. I explained to them to roll about one-inch-wide thin paper at penis base with little overlap and to secure it with one inch tape. Routine stamp rolls with perforations are difficult to get from post offices these days but

some got and used them. In some males, I used sticky notes (a small piece of paper with a re-adherable strip of glue on its back, made for temporarily attaching notes to documents). In positive test for NPT (16 out of rest 35), when they put roll of paper, stamp, or sticky notes roll at penis near base before sleep in boxer type underwear, their paper torn during sleep due to pressure by spontaneous erections making penis thick. I advised them to lie on their back in beginning of sleep to keep roll in place. I also asked all of not to indulge in sex after day's long work and suggested them to do sex after sleep at midnight/early morning taking advantage of spontaneous erections. Rest 19 males neither give history of spontaneous erection, nor able to get clue from paper roll (stamp) test were referred to MD (Medicine) for ruling out organic cause and MD (Psychiatry) for psychological assessment in detail.

Results

All 48 patients with positive history of morning erections (32) and positive torn paper roll (stamp test) (16) were assured that positive night erections means you have less chance of medical illness and asked to practice positive thinking, meditation, and yoga for better mental health. They are advised to have sex after getting enough rest during sleep time at midnight/early morning with more chance of REM sleep related erections at that point of time. Out of 48, 12 were lost to follow up, and out of remaining 36, 25 gave positive outcome due to more confidence about their physical fitness. Almost everyone who followed my advice about timings of sex was positive about performance and they said that their sexual partners were more cooperative at midnight/early morning. Also having sex at midnight/early morning with a partner who was in sleepy state, lying back and not moving much, was satisfactory with advantage of erections fueled by favourable physiology at that time, and gave young male confidence as a man. Rest (11) who were not satisfied referred to MD (Medicine) for ruling out organic cause and MD (Psychiatry) for psychological assessment in detail.

Discussion

During REM sleep, men experience penile erections and women clitoral enlargement due to increased blood flow to genitals, indicating that women's body is ready to have sex during REM sleep state. REM sleep evolved to promote attachment in sexual partners [1]. Nocturnal penile tumescence (NPT) or sleep erections occurs in all healthy males as a physiological phenomenon. Male sexual function can be evaluated by NPT [2,3]. Horita H et al. [4] studied the correlation of nocturnal penile tumescence (NPT) and serum free testosterone, which were evaluated in 123 healthy males and in 6 cases of primary hypogonadotropic hypogonadism before and after treatment with human chorionic gonadotropin (HCG). NPT as a parameter for the erectile function was related to androgen levels [4] The reason men wake up with an erection may be related to the fact they often wake up coming out of REM sleep. Testosterone, which is at

its highest level in the morning, has also been shown to enhance the frequency of nocturnal erections. Interestingly, testosterone has not been found to greatly impact visual erotic stimuli or fantasy-induced erections. These are predominantly driven by the "reward system" of the brain which secretes dopamine. It has been speculated that the main function of nocturnal erections is to provide adequate engorgement of the corpora cavernosa, which then leads to increased tissue oxygenation. This is in turn to prevent cavernous fibrosis, the histopathological basis for corporeal venoocclusive dysfunction, which probably is the most common cause of organic erectile dysfunction [5]. NPT has been measured by stamp test, Snap Gauges, strain gauges, NPTR (Rigi scan, Osbon Medical Systems), and sleep lab NPTR [6], but in India, it is difficult to use these except paper roll (stamp test), which can be easily self-performed and can give confidence to a young male [7]. Given the involuntary nature of erections in sleep, sleep-related erection (SRE) testing has been used to differentiate psychogenic from organic impotence [8]. Involuntary sleep-related erections (SREs) occur naturally during REM sleep in sexually potent men and other mammals. The regularity of their pattern and non-volitional nature made SREs useful clinically for differentiating psychogenic and organic erectile dysfunction (ED) in candidates for surgical intervention [9]. McNamara P et al. [10] studied that men who are physically under great strain or serious psychological stress may find it difficult to maintain a psychogenic erection. The best time for them to have sex would be during sleep time, such as when they are experiencing REM sleep-related erections. It is reasonable to assume that the NPT phenomena might have evolved as a tool for having sex, in the context of both procreation and recreation [10]. Based on a review of the evolutionary and neuropsychological study of REM sleep, REM sleep functions to promote attachment and promote sexual pair bonding and serve related compensatory functions [11].

Conclusion

Nocturnal penile tumescence can be used as a means of separating neurogenic from psychogenic erectile dysfunction. NPT presence and demonstration can give confidence to a youth as a man and can lessen sexual anxiety. Having sex after rest during sleep at midnight or early morning has advantage of favourable physiology of REM sleep erections and favourable levels of testosterone.

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