

## Case Report

# SILDENAFIL INDUCED URINARY INCONTINENCE: A RARE CASE REPORT

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## ABSTRACT

Sexual dysfunctions comprises of large group of those diseases which remain underreported because of social stigmas associated with those. Erectile dysfunction is common in this category for which instead of consulting physician the patients either generally consult quacks or take medicines on their own. Sildenafil citrate is the most common drug being self medicated for this especially in India. Various side effects of sildenafil many of them being potentially fatal are well known. Here we are reporting a rare case of sildenafil induced urinary incontinence in 32 years old normal male. Patients as well as physicians should keep this issue in mind while dealing with this medication.

**Key Words:** *Erectile dysfunction (ED), Sildenafil Citrate, Urinary Incontinence, PDE-5*

## INTRODUCTION

Erectile dysfunction (ED) is defined as the persistent inability to achieve or maintain penile erection sufficient for satisfactory sexual performance for period of persistence over 3 months (Anonymous, 1993 and Feldman, 1994). Pharmacotherapy is the initial form of therapy for most men with erectile dysfunction especially PDE-5 inhibitors like sildenafil, vardenafil, tadalafil, udenafil and mirodenafil (K. Park, 2011). Sildenafil citrate is the most commonly used among these recommended in the dose of 50 mg (for men >65 yrs 25mg), if not effective then 100mg one hour before intercourse (Tripathi, 2006). The adverse events reported with the use of sildenafil are found to be of mild or moderate severity like headache, dizziness, flushing and low BP, loose motions, nasal congestion, and very few cases of nonarteritic ischemic optic neuropathy (NAION) (Tripathi, 2006). Urinary incontinence has never been reported as a side effect with this drug. Here we report the rare case of sildenafil induced urinary incontinence in 32- year-old male.

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32 years old patient was suffering from difficulty in penile erection intermittently since one month. In his 10 years of married life, he never suffered this type of problem before. Because of the shyness he didn't consult doctor for this issue and on the advice of his pharmacist friend he took the tablet sildenafil citrate (50mg) one hour before sexual intercourse. Problem of ED solved for that day temporarily. But since the next morning, he started complaining of involuntary dribbling of urine associated with sense of urgency for whole day which automatically subsided after 12 hours period. There was no impact of this complaint on his routine activities. Patient has not taken any other medication of any form in the last one week. Patient denied of similar complaints in the past as well as any previous history of surgical procedures, radiation exposure, sexually transmitted diseases, other problems related to micturition like dysuria, haematuria, recurrent UTIs. General examination of the patient was within normal limits. On local examination, there was no anatomical alteration of genitals or any signs of STDs. On palpation, per abdominal examination was also within normal limits. Urine analysis was normal in all aspects. Ultrasonography of lower abdomen did not revealed any abnormality along with normal post void residual. Cystoscopy also didn't reveal any damage to spincters, any impairment in urethra or bladder neck stricture.

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### DISCUSSION

To the best of our knowledge, this is the first ever reported case of urinary incontinence from supposedly safe dose of sildenafil citrate in normal healthy individual. Sildenafil citrate is the first oral PDE-5 inhibitor approved by FDA for treatment of ED (Awasthi, 2004). It competitively and selectively inhibits cGMP specific phosphodiesterase-5 and thus inhibits cGMP hydrolysis, thereby reinforcing the physiological signal that facilitates smooth muscle relaxation and erection (Awasthi, 2004). It is suggested that sildenafil induces the relaxation of human detrusor smooth muscle by cGMP and cAMP-dependent pathways (Uckert, 2010). Hence, it can be concluded that PDE-5 is involved in mediating bladder smooth muscle relaxation and controlling tissue proliferation. Blocking PDE-5 might represent an option for the treatment of urinary incontinence instead of causing it (Uckert, 2010). In present literature, there is not a single scientific reference to explain this type of side effect with this drug. The only explanation given can be that apart from a direct effect on the smooth muscle of the detrusor, PDE-5 inhibitors may act in a way to help prevent deleterious alterations of the histological structure of the urinary bladder that may lead to disturbances in urine storage and voiding (Uckert, 2010). This might be the possible cause of urinary incontinence in this case.

This type of adverse effect can't be explained by any other concurrent drug, disease or chemical intake and existing literature about the same drug. The reaction is dose unrelated and can be labelled as 'type B reaction' of adverse effect (Edwards, 2000). According to The WHO-UMC causality assessment system this ADR can be classified as *Unassessable/ Unclassifiable* as it can't be judged because information is insufficient or contradictory and the data cannot be supplemented or verified (WHO-UMC).

### CONCLUSION

Unauthorised use of sildenafil is on the rise for ED. Urinary incontinence, a rare adverse event as mentioned above and as it is subsided in 24 hours might be unreported. By reporting this case report, we aim to create awareness about a rare but significant drug reaction like urinary incontinence which can occur with this front line drug used in the treatment of erectile dysfunction. We recommend that patients taking this medication should be aware of this, and should report this immediately to the physician so as to add the data for its confirmation as adverse drug reaction.

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