



METHYLENE BLUE AS ANTIDOTE FOR ISCHEMIC PRIAPISM STATUS BY CUMULATIVE ORAL DOSES OF TURKISH VIAGRA PASTE, ADULTERATED WITH SILDENAFIL PASTE, A CASE REPORT

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Abstract:

Background: Priapism is prolonged and persistent erection of the penis without sexual stimulation. It is an uncommon urological a time –sensitive emergency. Drugs- self-medication of over-the-counter are known causes of priapism. Ayurveda Turkish Viagra paste is illegally imported, commonly over the counter herb used as aphrodisiac. Treatment of priapism varies from a conservative medical to a drastic surgical approach. Treatment; Methylene blue (MB), a guanilate cyclase inhibitor, is a potential inhibitor of endothelial-mediated cavernous relaxation. Result; Serial of ayurveda Turkish Viagra paste `s samples were emphasized the adulteration them with considerable quantities of Sildenafil by chromatographic analysis charts. Conclusion; Serial therapeutic aspiration of blood from erect penis, followed by intercavernosal injection of Methylene Blue, prompted us to assess the feasibility, use and effectiveness of MB in the treatment of priapism.

Keywords: Methylene blue, Sildenafil, Self-Medication, Priapism, Over the Counter, Turkish Viagra paste,

INTRODUCTION; Priapism is an erectile disorder characterized by persistent tumescence or undesired painful erection of the penis without any stimulation or beyond sexual stimulation and orgasm lasting >4 hours. It is an uncommon urological emergency. There are three main types of priapism: ischemic (veno-occlusive or low-flow), nonischemic (arterial or high-flow), and recurrent ischemic (intermittent or stuttering). Ischemic type is most common and with profound consequences Although idiopathic, hematological, trauma, malignant infiltration of the penis, and drug-induced are common causes. Self-medication of over-the-counter drugs, especially Ayurveda formulations, is prevalent in orient part of the world. These self-herbal preparations are associated with severe adverse effects [1-3,4,5]. We report a case of ischemic priapism as a result of multiple over the counter Ayurveda formulation. Turkish Viagra Paste (Mesir Macunu) Aphrodisiac Honey Mix Maccun).

It contains about 30-40 different natural spices and herbs figure(1). Sildenafil Oral Jelly is used to get sustain erection in Erectile Dysfunction in men. It is safe to use and effectively cures impotence and diseases associated with PDE5 inhibitors. Sildenafil Oral Jelly comes in jelly form so that it can be easily swallowed than tablets and therefore suitable for older people .

Figure (1) ; commercial Viagra oral paste

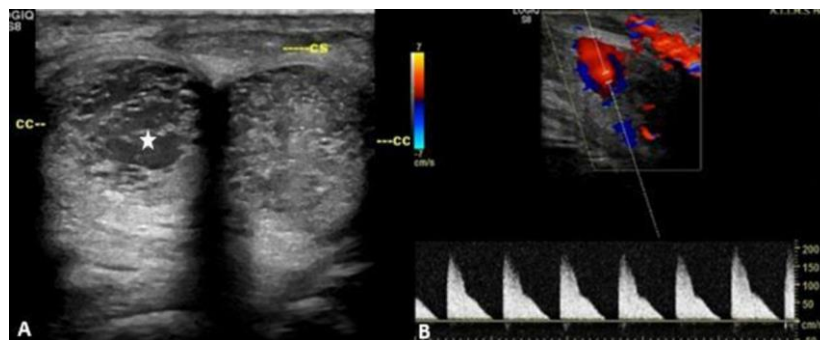


**Case report ;
 Clinical presentation**

A 54-year-old male presented with painful, persistent erection of penis for 1 day . He has been self-medicating and taking prescription from a public herbiest of oral Turkish Viagra paste jar with sildenafil Viagra paste .There was no history of trauma, sickle cell disease, malignancy, injectables, insect bite, or any other drug intake. On examination, vitals were stable, the penis was erect, rigid, dusky brown, and tender, but glans

was normal. He has been investigated with complete hemogram and peripheral smear which was found to be normal. Color Doppler study showed engorged sinusoids in the right corpora cavernosum with no arterial flow seen in right cavernosal artery (Figure 2). The left cavernosal artery shows color flow on power Doppler with peak systolic velocity of 4.5 ml/s. Bilateral corpora cavernosum were filled with echogenic contents.

Figure 2. Ultrasound Doppler shows minimal or no flow in penis.



with crankcase oil appearance sent for pH, PO₂, and PCO₂. Corporeal blood gas report was suggestive of hypoxemia, acidosis, hypercarbia, i.e., pH 7.05, PO₂ 36 mmHg, PCO₂ 65 mmHg.

Management; Penis was aspirated with 10 cc syringe multiple times and injected with Methylene blue[MB] , 200 umg/ml till 1 mg (Figure 3). Despite multiple aspirations, complete de tumescence could not

be achieved. Patient's penile blood gas study showed acidosis, hypercarbia, and hypoxia. initial management was aspiration of deoxygenated blood with wide bore needle followed by intercavernosal injection of MB. Thereafter, complete de tumescence could not be achieved and planned for distal percutaneous shunting. Distal percutaneous shunt bilaterally (T shunt) was created with 10 no. blade. Deoxygenated blood was

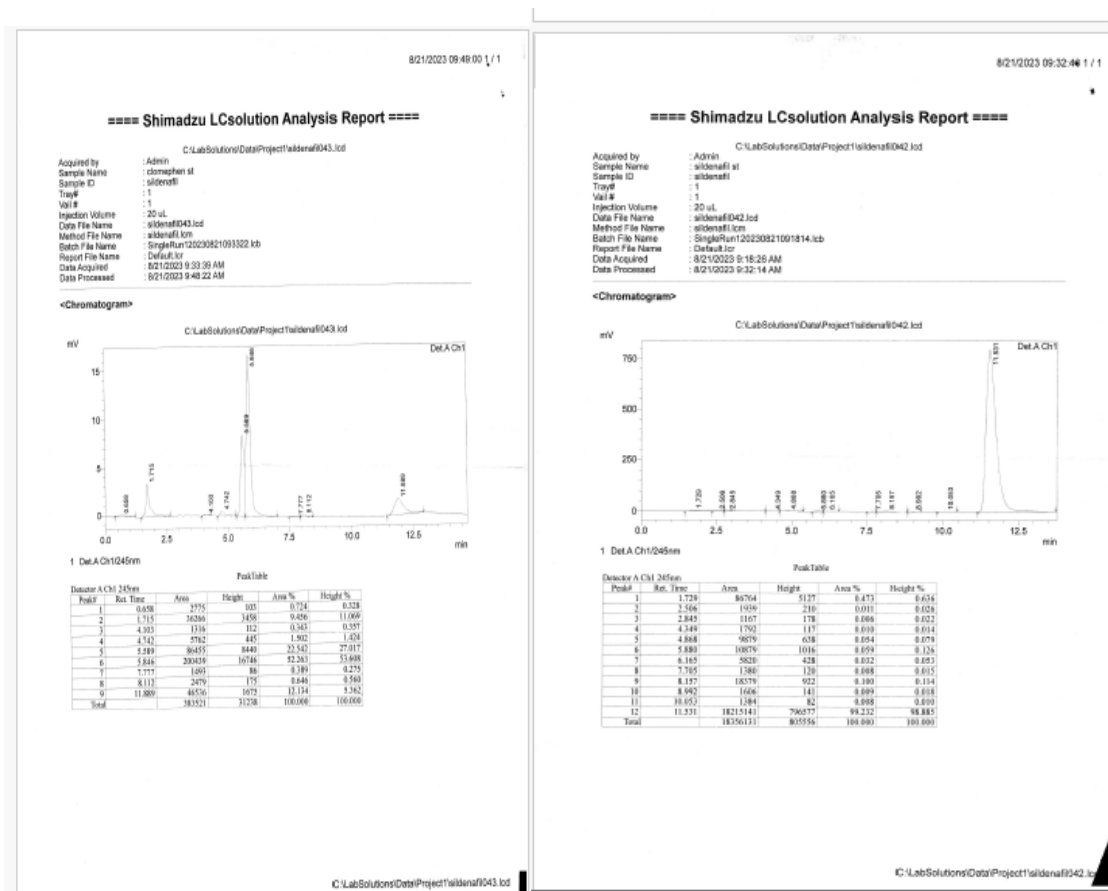
milked out and skin closed with catgut 2-0. Complete de tumescence could not be achieved. However, de tumescence was achieved after T shunt. The patient was followed with corporeal blood gases.

PO₂ 82, PCO₂ 34 cmH₂O, pH 7.34. Color Doppler showed cavernously blood flow with q max 25 ml/min in bilateral corporeal arteries.

Figure 3: Serial therapeutic aspiration of blood from erect penis.



Sildenafil Detection; The adulteration process was unveiled by chromatographic serial samples of Turkish Viagra paste[figure4].



DISCUSSION;

Priapism is defined as a persistent and painful erection of penis lasting more than 4 hours beyond sexual stimulation and orgasm, or without any sexual stimulation. The incidence of priapism is reported to be around 0.3 to 1.0 per 100,000 males per year [1,4]. It is of three types: ischemic, nonischemic, and shuttering types. Various causes are: idiopathic, iatrogenic (such as intracavernosal injection of prostaglandin E2 or papevarine), leukemia, alpha-adrenergic receptor antagonists, antidepressant and antipsychotic, leukemia's, malignant lymphoma, and metastasis. Ischemic priapism is characterized by persistent erection of the penis marked by corporal rigidity and absence of cavernosal arterial flow. It is a urological emergency, and immediate intervention is mandatory. Venous stasis and increased blood viscosity lead to compartment-like syndrome, ultimately leading to ischemia. Ischemic priapism becomes painful after 6 to 8 hours with persistent erection. Consequent penile tissue damage leads to permanent erectile dysfunction, and corporal fibrosis may occur as a consequence. Case history is important for diagnosis and helps in understanding the etiology. Blood investigations in the form of complete blood count and peripheral smear help

rule out anemia, leukemia, and infection and detect any hematological abnormalities. Color Doppler ultrasonography shows no blood flow in cavernosal arteries. Penile blood aspiration shows hypoxia (PO2 < 30 mmHg), acidosis (pH < 7.25) and corporal tissue ischemia (PCO2 > 60 mmHg). Using a stepwise approach to treat priapism is recommended. The first line of management is corporal aspiration using a large bore needle. Corporal aspiration should be done until dark red venous blood becomes bright red arterial blood. Surgical management in the form of shunting is recommended if conservative management fails or the duration of priapism is more than 48 hours [1,5,6,7,8,9,10].

In Iraq, self-medications with over-the-counter drugs are very prevalent. These medications are available with no control over sales. The effects and side effects of these drugs are not well studied. Minimal literature is available for these drugs. The benefits and adverse effects are not reported. Turkish Viagra pate is one of common herbiest sales origin used for aphrodisiac effects. Limited data are available regarding its potential effect and adverse effects. These medications are taken in excess, and combinations are prevalent [4,11,12,13]. Over-the-



counter self-medication that are prescribed by public health care associated with side effects, so their use should be limited. Studies should be conducted for effectiveness and safety of these medications. Sale and self-medication of these drugs should be controlled until sufficient evidence is available for these drugs and combination.

Acute ischemic priapism is an emergency urological condition which requires urgent intervention to prevent cavernosal ischemia, subsequent corporal fibrosis, and erectile dysfunction [14,15,16,17]. Self-medication with over-the-counter herb mixtures and/or oral paste are unrestrained and superfluous. Prescriptions of these drugs are not monitored, and they can be associated with significant side effects. Benefit and adverse events of these drugs are infrequently reported. Studies should be conducted for these over-the-counter medications. Sale and self-medication of these drugs should be controlled until sufficient evidence is available for these folk medicine.

CONCLUSION: These results confirm that MB is a safe and highly effective treatment agent for short-term pharmacologically induced priapism. The application of MB shows virtually no significant side effects compared to the systemic and local complications induced by alpha-adrenergic agonists.

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