HIGH FLOW PRIAPISM IN 7 YEARS-OLD BOY AFTER ACCIDENTALLY CONSUMING APHRODISIAC CHOCOLATE: A CASE REPORT

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ABSTRACT

Objective: *This case report aimed to present our experience of conservative treatments for High Flow Priapism in children.* ***Case(s) Report:*** *A 7 years old boy presented with persistent and painless erections without sexual stimulation for 24 hours, the erection was first noticed when he woke up in the morning after accidentally consuming aphrodisiac chocolate 2 days before admitted to the hospital. There was no previous history of priapism and trauma or other risk factors.* ***Discussion:*** *Laboratory studies were within normal limits. Physical examination revealed a fully erect, nontender penile with rigid corpora cavernosa, soft glans, and erection hardness scale (EHS) 3. A cavernosal blood gas analysis was collected with the following values PH 7.41, pO2 117,7mmHg, and pCO2 24, 8mmHg. With diagnosis of High Flow Priapism, he was observed and got conservative treatments; ice and site-specific compression and after that EHS become 1. On follow-up after 2 months reported that patient had normal erections with no further episodes of priapism.* ***Conclusion:*** *High flow priapism in old boy after accidentally consuming aphrodisiac chocolate can managed by conservative therapy with favourable outcome.*

Keywords: *Aphrodisiac chocolate, penile erection, priapism.*

ABSTRAK

Tujuan: *Laporan kasus ini bertujuan untuk membagikan pengalaman dalam menatalaksana secara konservatif kasus priapismus non-iskemik pada anak-anak.* ***Presentasi Kasus:*** *Anak laki-laki berusia 7 tahun mengalami ereksi terus-menerus, tanpa rasa sakit dan tanpa rangsangan seksual selama 24 jam, ereksi pertama kali diketahui ketika dia bangun di pagi hari setelah tidak sengaja mengonsumsi aphrodisiac chocolate 2 hari sebelum dirawat di rumah sakit. Tidak ada riwayat priapismus dan trauma sebelumnya atau faktor risiko lainnya.* ***Diskusi:*** *Pemeriksaan laboratorium dalam batas normal. Pemeriksaan fisik menunjukkan ereksi penuh, penis tidak nyeri dengan korpora kavernosa kaku, tidak keras, dan erection hardness scale (EHS) 3. Dengan nilai analisis gas darah kavernosa PH 7.41, pO2 117,7 mmHg, dan pCO2 24,8 mmHg. Dengan diagnosis Priapismus Non-iskemik, pasien diobservasi dan ditatalaksana secara konservatif; kompres dingin pada penis dan setelah itu EHS menjadi 1.* ***Simpulan:*** *Priapismus non-iskemikdapat terjadi pada anak laki-laki setelah mengonsumsi aphrodisiac chocolate dan berhasil ditatalaksanai dengan terapi konservatif.*

Kata kunci: *Aphrodisiac chocolate, ereksi penis, priapismus.*

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INTRODUCTION

Priapism is defined as a persistent erection of the penis not accompanied by sexual desire or stimulation, usually lasting more than 6 hours and typically involving only the corpora cavernosa and resulting in dorsal penile erection with the ventral penis and glans being flaccid.[1] In some cases, this condition can be a urological emergency and has many different causes. The recently published American Urological Association Guideline on the management of priapism sheds further light on the management of this potentially emergent condition, but the guideline does not establish a fixed set of rules or define the legal standard of care for the treatment of priapism.[2]

Non-ischemic priapism is a persistent erection caused by unregulated cavernous arterial flow, characterized by a painless, persistent nonsexual erection that is not fully rigid and is

caused by excess arterial blood flow into the corpora cavernosa.[3] The cavernous environment does not become ischemic and cavernous blood gas does not show hypoxia, hypercarbia, or acidosis. Nonischemic, also known as high flow priapism (HFP), has been reported in a few boys younger than 6 years of age and a few more prepubertal boys.[4-6] Antecedent genitoperineal trauma is the most commonly described etiology, resulting in the disruption of one or more of the internal pudendal or corporeal arteries.[7] On rare occasions HFP is associated to sickle cell anemia, leukemia, or idiopathic factors.[8]

HFP does not require emergency treatment. The options for management vary from conservative therapy to embolization of the internal pudendal artery. Resolution is characterized by a return to a completely flaccid penis. In some cases, surgery is required, but it may result in subsequent erectile dysfunction.

Aphrodisiac chocolate is a supplement or drug that is produced specifically to deal with vitality problems in men. This chocolate is claimed to be effective in producing strong and long-lasting penile erections, treating premature ejaculation, and even treating impotence. This aphrodisiac chocolate consists of ginseng, aweto, acai berry, dark chocolate, sky fruit, damiana, and honey. From the laboratory results, it is known that aphrodisiac chocolate detected very high levels of tadalafil, an undeclared potent medicinal ingredient used in the treatment of erectile dysfunction in these products. The amount of tadalafil was up to 30 times higher than the usual prescribed daily dose.[9]

This case report aimed to present our experience of conservative treatment of High Flow Priapism in children.

CASE(S) PRESENTATION

A child suffered from high flow priapism (HFP) after accidentally consuming aphrodisiac chocolate. The retrospectively reviewed: history of the episode, physical examination, blood gas analysis, and results from the complete blood cell count. A 7 years old boy presented with persistent and painless erections without sexual stimulation for 24 hours. The patient noticed the erection when he woke up in the morning after accidentally consuming aphrodisiac chocolate 2 days before admitted to the hospital. There was no previous history of priapism and trauma or other risk factors. Laboratory studies were within normal limits. Physical examination revealed a fully erect, nontender penile with rigid corpora cavernosa, soft glans, and erection hardness scale (EHS) 3 (Figure. 1).

The result from the complete blood cell count were within normal parameters, A cavernosal blood gas analysis was collected with the following values PH 7.41, pO2 117,7 mmHg, and pCO2 24,8 mmHg. With the diagnosis of High Flow Priapism, he was observed and got conservative treatments; ice and site-specific compression. After that EHS become 1 (Figure 2). On follow-up, at 2 months after spontaneous detumescence reported normal erections with no further episodes of priapism and on examination had a normally appearing flaccid penile.

Figure 1. Clinical Appearance. the pictures show penile was fully erect, nontender penile with rigid corpora cavernosa, and soft glans.

Figure 2. Penile after conservative treatment and EHS become 1.

DISCUSSION

High flow priapism is a persistent erection caused by unregulated cavernous arterial flow. Typically, the corpora are tumescent but not rigid and the penile is not painful. The epidemiologic data on non-ischaemic priapism is almost exclusively derived from small case series or individual case report. High flow priapism is much rare than ischemic priapism, and the cause is largely attributed to trauma.

Forces may be blunt or penetrating, resulting in laceration of the cavernous artery or one of its branches within the corpora. The cause most commonly reported is a straddle injury to the crura. Other mechanisms include coital trauma, kicks to the penile or perineum, pelvic fracture, birth canal trauma to the newborn male, needle lacerations, complication of penile diagnostics, and vascular erosions complicating metastatic infiltration of the corpora.[10] High flow priapism can occur at the time of the injury or can be delayed for hours or days.[11]

Assessment of the patient begins with a detailed history, physical examination, and complete blood cell count (Figure 3). The definitive diagnostic is given by cavernosa blood gas analysis. In this case, high-flow priapism was caused by consuming aphrodisiac chocolate. His parents say that patient felt the erection after consuming aphrodisiac chocolate accidentally 2 days before admitted to the hospital.

Health sciences authority Singapore (HAS) has alerted the public not to purchase or consume this unsafe product. HAS'S laboratory detected very high levels of tadalafil, an undeclared potent medicinal ingredient used in the treatment of erectile dysfunction. The tadalafil was up to 30 times higher than the usual prescribed daily dose. Consuming such high levels of tadalafil is dangerous and would increase the risk of serious adverse effects, including heart attacks, stroke, vision, and hearing loss.[9] Tadalafil is used in the treatment of erectile dysfunction and is a potent, reversible, competitive inhibitor of phosphodiesterase 5 (PDE5), an enzyme that inactivates cyclic guanosine monophosphate (cGMP).[12-13] Inhibition of PDE5 in the corpus cavernosum of the penis increases intracellular cGMP levels, thereby facilitating the relaxation of smooth muscle leading to penile erection.[14-15]

Inspection and palpation of the penile are recommended to determine the extent and degree of tumescence and rigidity, the involvement of the cavernous bodies, the presence of pain, and evidence of trauma to the perineum. If the physical examination reveals the penile to be nontender, tumescent, or partially erect, high-flow priapism should be suspected. Physical examination revealed a fully erect, nontender penile with rigid corpora cavernosa, soft glans, and erection hardness scale (EHS) 3. The result from the complete blood cell count were within normal parameters, we postulate that the patient should first undergo corporeal

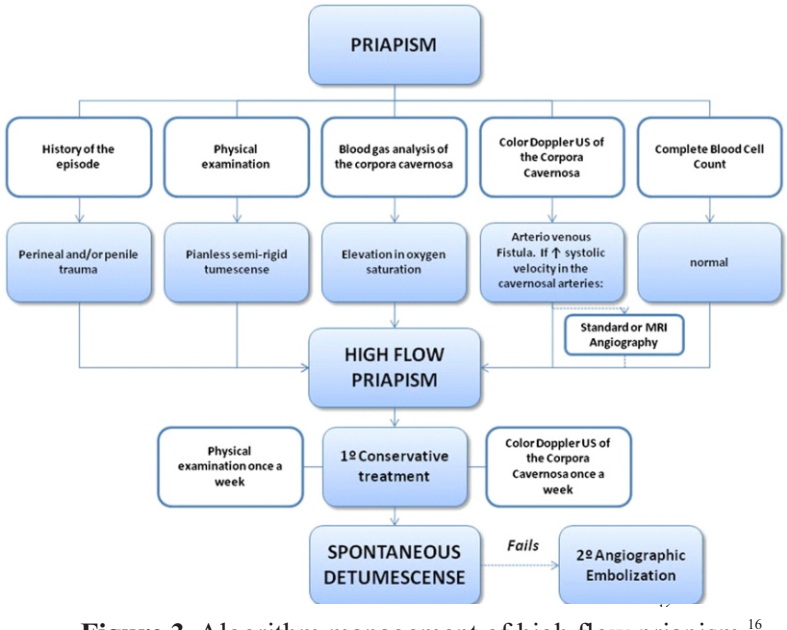

Figure 3. Algorithm management of high flow priapism.[16]

aspiration for blood gas analysis to confirm the diagnosis. The cavernosal blood gas analysis was collected with the following values PH 7.41, pO2 117,7mmHg, and pCO2 24,8mmHg. Aspirated penile blood is noted to be bright red in this case, and has a high PO2.

At present, various therapeutic options exist to treat high flow priapism: mechanical (sustained perineal compression and ice packs), pharmacological (intracavernous, venous or oral drug administration), radiological (selective transcatheter embolization therapy), and surgical (arterial ligation or arteriovenous shunts). Less invasive procedures are more and more successful and the need for surgery tends to decrease. Prevailing disorders might contraindicate or render ineffective one or more of the already mentioned options.[17] Application of ice packs is a simple therapy. We perform conservative management, which may include the use of ice and site-specific compression. It is an option in this case and it has been reported to be successful.

CONCLUSION

Priapism in children is most commonly related to SCD. This is the first case of high flow priapism in a 7 years old boy caused by consuming aphrodisiac chocolate accidentally aphrodisiac chocolate to manage with conservatively resulted in a favorable outcome.

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