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Priapism in the newborn: Management of a case

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ABSTRACT

Priapism is extremely rare in newborns and generally idiopathic. The objective of present paper is to report the case of a newborn with priapism on the 2nd day of life. Clinical and paraclinical assessment did not reveal an etiology. Conservative management was instituted and the erection resolved fully on the fourth day of life.

1. Introduction

Priapism is a pathological condition representing a true disorder of penile erection that persists beyond 4 hours or is unrelated to sexual interest or stimulation.¹ It is classified into two types: (a) ischemic priapism, (b) non-ischemic priapism.² In pediatrics population, the cause of priapism is frequently do to sickle-cell population and is exceedingly rare in newborns. The cause is unknown in most cases and evolution is spontaneously good, and few will require any specific treatment.³ But this situation is a source of stress for the parents, but also for pediatric surgeon who has to deal with a poor and uncodified management. We report a case of neonatal priapism followed in our hospital and review of the literature concerning the management and follow-up of this condition.

2. Case report

A 3 days newborn of a 34-year-old mother, gravida 7 and para 5, presented in emergency with persisting erection on the third day of life. Two days after birth, start a sudden and permanent erection associated with incessant crying. He received rectal paracetamol before the consultation. He was born full term by an uncomplicated vaginal delivery to a mother who was not sickle cell disease (SCD) and another pathology. Routine prenatal screens were normal. Birth weight was 2800 g and Apgar 6 and 8 in the 1st and 5th minutes. Newborn was in good general condition, not distressed, well colored. The weight was 2.8 kg and normal temperature. Physical examination was normal with palpation of the 2 testes in the scrotum outside the penis which was

tense and no tenderness (Fig. 1). Digital rectal examination was normal. Biological assessment carried out, namely blood count, blood electrolytes, prothrombin and activated cephalin time, was normal. Doppler ultrasound of the penis showed normal arterial flow in the penis, as well as normal venous flow.

The treatment consisted of intravenous analgesic (paracetamol). The regression of priapism took place in 24 hours. No recurrence was noted and on follow-up at 3 months, the patient was found to have a normal examination and parents reported normal erections.

3. Discussion

Neonatal priapism is a rare phenomenon, and the true incidence of neonatal priapism is unknown. The term priapism has its historical origin in reference to the Greek god Priapus, who was worshiped as a god of fertility and protector of horticulture. The first recorded account of priapism in English medical literature is recorded in the Lancet and attributed to Tripe in 1845.⁴ It is the first case described in our country.

Priapism in children and adolescents is most commonly related to SCD¹ and the majority of SCD priapism is ischemic. In the neonatal period predominates fetal hemoglobin, not hemoglobin S,³ so this cause is ruled out. This form remains still poorly understood despite some publications on the subject. This is non ischemic or high-flow.⁵ In rare case of newborn priapism described, rarely etiology has been defined: polycythemia, thrombocytosis, congenital syphilis, blood transfusion, hypoxia and birth canal trauma.² In our case, except a bad Apgar at 1 minute, no pathology was found in the newborn.

Diagnosis is essentially clinical and age of diagnosis varies from one

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Fig. 1. Priapism in a newborn.

publication to another. Age ranged from 0 to 20 days, up to 37 days in a preterm infant.⁴ Physical examination regains a permanent, tenderness contraction of the penis without associated sign or modification of skin discoloration, compatible with arterial (high flow) priapism. Our case was noted to have similar signs. In literature, one case presented with spontaneous bilateral pyocavernositis after 20 days of priapism and one a left cryptorchidism.⁵

First-line investigations should include careful assessment to rule out a common cause of prolonged erections in neonates such as polycythemia.⁴ Blood count need to be realized for polycythemia. Over explorations should be reserved for exceptional circumstances.³ Doppler ultrasound of the cavernous bodies allows to highlight the non-ischemic character, described in most publications regarding newborn priapism.

The management of high-flow priapism is not an emergency because the penis is not ischemic,¹ and is not well standardized. Evolution of this

form being spontaneously favorable with no serious sequelae.^{2,3} We think that conservative management with close observation is appropriate in idiopathic neonatal priapism.

4. Conclusion

The newborn priapism is a rare condition, as evidenced by the limited number of publications. Diagnosis is essentially clinical and minimally invasive diagnostics such as Doppler ultrasound and blood count, should be performed in etiological research and also allow to decelerate any complications. Other investigations must be carried out depending on the case. Observation alone seems to be the best approach of management of priapism in the newborn. Regular follow up should be carried out to ensure the absence of sequelae.

Patient consent

Consent to publish the case report was not obtained. This report does not contain any personal information that could lead to the identification of the patient.

Declaration of competing interest

The following authors have no financial disclosures: (A K S, M O M, E A M, K J M, K Y G S; T A H, B S R).

Abbreviations

SCD sickle cell disease

Authorship

All authors attest that they meet the current ICMJE criteria for Authorship.

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