



Recurrent Paraphimosis in a Tetraplegic Patient Admitted for Inpatient Rehabilitation

Yatarak Rehabilitasyon İçin Başvuran Tetraplejik Bir Hastada Tekrarlayan Parafimozis

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Abstract

An uncircumcised Hindu tetraplegic patient with a Foley catheter was admitted to our Physical Medicine and Rehabilitation Hospital for rehabilitation. He developed recurrent paraphimosis. We found out that it was happening due to not repositioning the foreskin over the glans penis after the daily routine urinary catheter care procedure by the nursing staff. In a Muslim country, nurses are mostly acquainted with Muslim patients who are circumcised. We educated the nurses about the reason for the recurrent paraphimosis and instructed them to replace the foreskin over the glans penis after each urinary catheter care procedures. The patient did not develop paraphimosis since then until discharge.

Key Words: Paraphimosis, recurrent, tetraplegia

Özet

Tetraplejik, Foley kateterli, sünnetsiz bir Hintli hasta rehabilitasyon için Fiziksel Tıp ve Rehabilitasyon Hastanemize başvurdu. Tekrarlayan parafimozis geliştirdi. Biz bu durumun; bakım personeli tarafından günlük rutin idrar kateter bakımı işleminden sonra glans penis üzerinde sünnet derisinin yeniden konumlandırılmaması nedeniyle olduğunu saptadık. Müslüman bir ülkede hemşireler çoğunlukla sünnetli Müslüman hastalarla karşılaşmaktadır. Biz tekrarlayan parafimozisin nedeni hakkında hemşireleri eğittik ve her idrar kateter bakımı prosedüründen sonra glans penis üzerinde sünnet derisinin yerinin değiştirilmesi için talimat verdik. Hastada daha sonra taburcu olana kadar parafimozis gelişmedi.

Anahtar Kelimeler: Parafimozis, tekrarlayan, tetrapleji

Introduction

We report a case of recurrent paraphimosis in a tetraplegic patient. The patient was involved in a road traffic accident and sustained a spinal cord injury. Paraphimosis is the swelling of the prepuce when the foreskin of the penis is retracted over the glans and can not be replaced in its normal position. The tight ring of preputial skin constricts the distal penis, causing vascular occlusion, like a tourniquet. The condition is painful and, if not dealt with quickly, can lead to necrosis of the glans (1). Recurrent paraphimosis can occur if the cause is not dealt with. In our case, we identified that educated nursing care is an important factor that can prevent recurrent paraphimosis.

Case Report

A 47-year-old Indian Hindu male tetraplegic patient was admitted in our Physical Medicine and Rehabilitation Hospital on 12.9.2011 for rehabilitation. He had a history of a road traffic accident on 30.6.2011. A CT scan showed fracture of the C6 spinous process. MRI of the cervical spine showed a large C4-C5 disc protrusion abutting on the cord with cord signal changes. The patient was diagnosed to have central cord syndrome and was operated on for cervical decompression and fixation of C3 to C5 on 28.7.2011. Postsurgery, he had worsening of symptoms and could not move all four limbs. On admission in our hospital, he had no muscle power in the upper limbs, knees, and

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hips. Ankles had 2/5 muscle power. Sensation was preserved. Spasticity was around 2 on the Modified Asworth Scale of all four limbs, with decerebrate posture. He had no bladder or bowel sensation. Bladder was on a Foley catheter, and bowel was on a diaper.

The patient developed phenytoin toxicity early on admission and was treated with a gradual reduction of dose with improvement of symptoms.

The patient developed foreskin swelling of the penis for the first time on 05.10.2011. On examination, the constriction ring could be felt proximal to the glans penis. The patient was diagnosed to have paraphimosis and was referred to a surgeon. He also diagnosed the case as possible paraphimosis. He advised for ciprofloxacin 200 mg IV twice daily for 7 days, piperacillin 4.5 gm IV three times daily for 7 days, riparil two tablets three times daily for 10 days, daily cleaning of the glans penis with saline and povidone iodine, and hydrocortisone ointment to apply locally. Swelling was improved after 4 days. The patient had a second swelling of the prepuce on 26/10/2011. This time, swelling was mild and improved in a few days spontaneously. Third-time prepuce swelling started on 05.12.2011 (Figure 1). This time, we treated him with gradual compression of the swelling distal to proximally. Swelling reduced after 10 minutes. We could pull back the prepuce over the glans penis (Figure 2). After 3 hours, the swelling reduced completely (Figure 3). We found out that nurses were not repositioning the prepuce after their daily morning catheter care when they used to clean the area after retracting the prepuce behind the glans penis. We educated the nursing staff about the reason of his recurrent paraphimosis. Nurses followed the instruction of repositioning the prepuce after catheter care. The patient did not develop paraphimosis again during his hospital stay of a further 3 months. The patient was discharged after 3 months on his own request and traveled to India to continue his rehabilitation.

Discussion

Many causes of paraphimosis are identified, such as direct trauma to the area, failure to return the foreskin to its normal location after urination or washing, or infection, which may be due to poor personal hygiene. Uncircumcised males, and those who may not have been correctly or completely circumcised, are at risk (2,3).

Our patient was seen by the surgeon when he developed paraphimosis for the first time. The surgeon suspected that the patient developed paraphimosis due to infection and treated him with proper antibiotics. The second time, the foreskin swelling was mild and resolved spontaneously, maybe due to keeping his foreskin back over the glans after cleaning by the nursing staff. When the paraphimosis occurred for the third time, we became concerned. When we tried to investigate the cause of recurrent paraphimosis, we found out that the nursing staff were not returning back the foreskin over the glans penis after daily morning routine catheter care for the patient. The reason could be ignorance about the cause, which could be more prevalent in a Muslim country. Nursing staffs are less acquainted with Hindu patients, where intact foreskin, when retracted, needs to be



Figure 1. Prepuce swelling with constriction ring seen during third recurrence of paraphimosis



Figure 2. Immediately after squeezing and pulling back of the prepuce over the glans penis



Figure 3. Paraphimosis reduced after 3 hours

pulled back over the glans penis after the catheter care. In Muslim patients, the incidence of paraphimosis is very low due to early circumcision for the religion cause, where there is no need to replace the foreskin after catheter care. A hard Foley catheter was a contributing factor for the development of paraphimosis in our patient. The combined hard Foley catheter with the retracted foreskin caused a constriction ring behind the glans penis. This constriction ring was easily palpable behind the glans in this patient.

Many procedures are described in the literature about the management of paraphimosis. When patients do not recover by simply pulling the foreskin back into the normal position, they were reduced by different puncture techniques (4), such as osmotic methods, aspiration methods (5), using hyaluronidase (6), etc. If paraphimosis still does not improve, the band is to be divided (7). Antibiotic treatment in our patient during the first-time occurrence of paraphimosis could have been avoided if the cause would have been identified in the first place. Second-time occurrence was mild and did not warrant our attention due to spontaneous recovery. When it occurred for the third time and we understood the reason, it was enough to retract the foreskin back over the glans. Swelling and pain reduced successfully within hours.

Educating the nursing staff about the reason of recurrent paraphimosis was the key factor in the management of this patient, because after the nursing staffs were careful to pull back the foreskin over the glans penis after each urinary catheter care procedure, the patient did not develop paraphimosis again until his discharge (after 3 months).

Conclusion

Recurrent paraphimosis can occur in uncircumcised patients who are on a Foley catheter if the foreskin of the penis is kept retracted behind the glans penis after the catheter care. Nursing staffs should be educated about the importance of keeping the foreskin back over the glans after each catheter care in un-

circumcised patients to prevent recurrent paraphimosis. This is particularly important in a Muslim country, where the nursing staff may not be acquainted with many uncircumcised patients.

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