

Management of Hypospadias in Identical Twins at Mali Gavardo Hospital

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Abstract

Original Research Article

This is a prospective study of two cases of hypospadias in identical twins with the same location and the same symptomatology at Mali Gavardo Hospital. Hypospadias corresponds to hypoplasia of the tissues forming the ventral surface of the penis responsible for an ectopic abruption of the urethra. Its aetiology is multifactorial, the surgical management is adapted according to the anatomical location. The Mathieu urethroplasty technique was used in both patients, urine drainage was performed with 8fr silicone catheter for 5 days. Post-operative follow-up was marked by a skin fistula in one case on the fourth day with spontaneous closure on day 8. **Material Methodology:** This was a prospective study of two cases of hypospadias in identical twins at the Mali Gavardo Hospital. The following parameters were studied: age, reasons for consultation, physical examination, complementary examinations, surgical treatment and post-operative follow-up. **Conclusion:** Hypospadias is a congenital malformation in males, the frequency of which is increasing throughout the world, and should be treated from an early age. In our context, the presence of the same anatomical form and the same location in both twins is still very rare in the literature, hence the need to share our experience with others. The Mathieu technique remains the reference technique for the management of hypospadias.

Keywords: Hypospadias, Urethroplasty, Urology.

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INTRODUCTION

Hypospadias is a hypoplasia of the tissues forming the ventral surface of the penis, resulting in an ectopic urethral opening [1]. This congenital anomaly results from a failure of the two epithelial surfaces of the urethral groove to fuse between the 11th and 18th weeks of development. The earlier this process is stopped, the more proximal and severe the form [2]. It is the second most common genital malformation in boys, accounting for 1 in 250 male births. Its origin is often multifactorial (genetic, endocrine and environmental). There are three anatomical forms: proximal, middle and distal (the most common) [2]. Numerous techniques have been described. They all share the same three operative steps: removal of the penis, urethroplasty and reconstruction of the ventral

surface of the penis. They are based on the principles of direct sutures, local pedicled flaps and/or grafts (skin or mucosa) [3]. The post-operative complication rate is between 6 and 30%. The two main complications are fistulas and stenosis. These children need to be monitored, particularly psychologically, until they reach adulthood. Surgery for hypospades remains delicate and must be performed by experienced surgeons [3]. The aim of our work was to highlight the presence of penile hypospadias in identical twins with the same anatomical location.

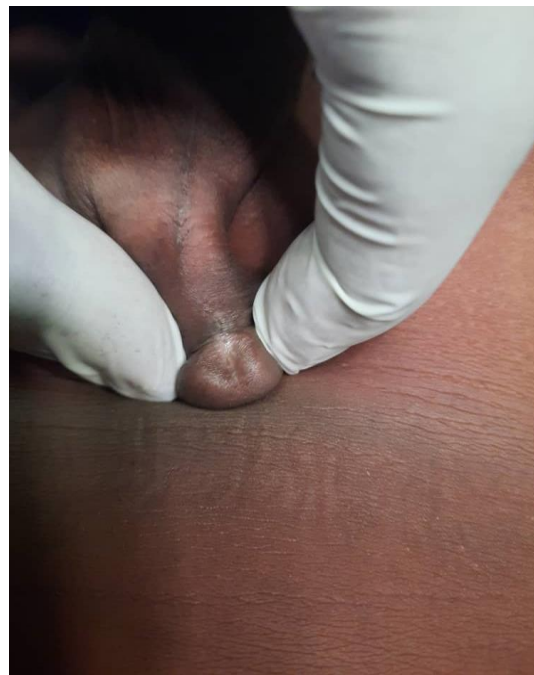
MATERIAL METHODOLOGY

This was a prospective study of two cases of hypospadias in identical twins at the Mali Gavardo Hospital. The following parameters were studied: age,

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reasons for consultation, physical examination, complementary examinations, surgical treatment and operative follow-up. Clinical case: We report a case of penile hypospadias in two identical twins, all 5 years old with no particular surgical medical history, the 2nd son of their siblings, who consulted the Gavardo Urology Department with their mother, who according to her, noted an abnormal position of the urethral meatus and uncontrolled loss of urine during micturition, sometimes accompanied by dysuria, thus motivating them to initially consult a local clinic where the twins had been circumcised, but despite the procedure the symptoms persisted. According to their

mother, the pregnancy was expected to be full term, and the twins were delivered in a local health centre with inadequate technical facilities and a shortage of qualified staff. On clinical examination, the external genitalia were male, and the urethral meatus at the level of the anterior penile urethra was stenotic, with a slight kink in the glans towards the ventral part of the penis. An abdominopelvic ultrasound was carried out with no findings. The biological work-up came back without any particularities. The procedure performed was a urethroplasty using the Mathieu technique. The images taken during the consultation of the two patients were as follows



COMMENT AND DISCUSSION

Hypospadias is one of the most common genital anomalies, and its prevalence has increased significantly in recent decades. It is defined as a congenital anomaly of the penis where the urethral meatus terminates ectopically on the ventral surface of the penis. Associated with this ectopic urethral meatus, there may be a ventral curvature of the penis and an anomaly of the prepuce skin. Hypoplasia surgery has evolved considerably over the last twenty years thanks to a new anatomical approach that has led to a better understanding of ventral anomalies of the penis and ways of correcting them. The description of the hypoplasia of the tissues downstream of the division of the corpus spongiosum and the concept of the urethral groove are the two major elements that allow the choice of the most suitable reconstruction technique [5]. In the literature, the diagnosis of hypospadias is usually made at birth in the delivery room by health workers during a complete examination of the child [6]. In our case, the diagnosis was made at a very late stage after the parents had observed the children urinating and making little plaintive cries due to dysuria. These two twins had the

same type of anatomical location of their hypospadias with a stenosis of the urethral meatus. We could therefore say that this delay was probably due to the ignorance of the parents and health workers who attended the delivery of the twins. The consequences are aesthetic and functional, with a urine stream directed downwards, which may prevent the child from urinating standing up like his peers. As the child grows older, this anomaly may be the cause of psychological problems [7, 11]. The sexual impact of hypospadias only develops gradually over the years, and sometimes becomes so great that some patients who have undergone surgery have their penis straightened, giving them sexual possibilities [8]. The problem of hypospadias in adults is more complex than in children, for several reasons: We have used the Mathieu technique, which is considered to be the reference urethroplasty technique for anterior hypospadias [7] with few urethral complications. The value of urinary drainage in reducing the rate of fistula is not clear, since in children who have had no urinary drainage, the rate of fistula ranges from 0% [8] to 19% [8-10]. Our aim was to bring the urethral meatus to the top of the penis,

straighten the penis, restore, as far as possible, a normal appearance to the penis, correct the trajectory of the urinary jet and restore erectile function. The post-operative course was marked by a skin fistula in one

twin on the fourth day, which closed spontaneously on day 8.

Some Iconographies of Uretroplasty



CONCLUSION

Hypospadias is a congenital malformation in males, the frequency of which is increasing throughout the world and which must be treated from an early age. In our context, the presence of the same anatomical form and the same location in both twins is still very rare in the literature, hence the need to share our experience with others. The Mathieu technique remains the reference technique for the management of hypospadias.

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