Bilateral Hydronephrosis After Hypospadias Surgery

Hipospadias Cerrahisi Sonrası Gelişen Bilateral Hidronefroz

ABSTRACT: Hypospadias is the most common congenital penile anomaly and occurs in 1/300 live births. Surgical treatment is considered difficult as the complications, and unfavorable results are typical. New techniques have significantly decreased the complication rates. However unfavorable results are still disturbing. We report a case of hypospadias surgery complication; meatal stricture caused bilateral hydronephrosis.

Keywords: Hypospadias; hydronephrosis; stenosis


Anahtar Kelimeler: Hipospadias; hidronefroz; stenoz

Hypospadias is the most common congenital penile anomaly and occurs in 1/300 live births. Although many surgical technics are on the field, it still considered difficult because of the complications. However new techniques have significantly decreased the complication rates, unfavorable results are still disturbing. In this paper we present a complication of hypospadias surgery; meatal stricture caused bilateral hydronephrosis.

CASE REPORT

The patient was a 14-year-old boy. He was complaining about decreased voiding stream, painful voiding and back pain. In his history, 6 months before he had been applied subcoronal hypospadias surgery in another hospital with no complications. In the physical examination, stenosed meatus was seen (Figure 1). In an outpatient procedure, it cannot be calibrated with a 6f nelaton catheter. In the bedside ultrasonography (USG) bilateral grade I hydronephrosis was seen. His urine analysis, blood analysis, and kidney, ureter, bladder (KUB) x-ray were normal. Then we applied meatotomy (Figure 2).
After the operation, the patient is well, and he can normally void. At his bedside, USG hydronephrosis was resolved (Figure 4).

**DISCUSSION**

Tubularized incised plate urethroplasty (TIPU) was described by Snodgrass in 1994. It’s the method of choice for distal and mid penile hypospadias surgery. The advance of new techniques decreases complication rates, but they still concern surgeons. The urethrocutaneous fistula was the most common (21%) complication. It’s followed by meatal stenosis (14%) and narrow neourethra (14%). Meatal stenosis is an avoidable unfavorable complication. Generally, it occurs due to an attempt to reconstruct the urethra too distally and trying to create a cosmetically circular opening. Also, suture dehiscence can cause subsequent contraction and scar.

Although meatal stenosis is the second common complication of the hypospadias surgery, the management of this complication is still a dilemma. Some authors recommend surgical intervention with dorsal meatotomy. Some authors recommend regular calibration/dilatation initially. Also combining corticosteroids increases scar elasticity.

At present, 3 months after the operation, the patient is well, and he can normally void.
and facilitates dilatation.6,7 If the stenosis is too long, it needs to be reopened, and full thickness graft FTG may be required.8,9

After hypospadias surgery, long-term follow-up is necessary to detect late complications like urethral stricture, meatal stenosis, voiding dysfunctions and recurrent penile curvatures. As in our case, meatal stenosis can cause bilateral hydronephrosis due to lower urinary tract obstruction and need of a second operation occurs. If these complications do not treat properly, they can cause irreversible and fatal problems.

In conclusion, secondary hypospadias surgery is a complex condition due to its nature, and it should be handled by an experienced pediatric urologist with great care.

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