

**REVIEW PAPER****Nursing Care and Parents Contribution in the Care of their Children with Hypospadias****Maria Tsiligiri, PhD**

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**Abstract:**

The term hypospadias is derived from the Greek language and refers to the pathological condition of urethra, which the vestibule, by the time of embryology is imperfect. Approximately 1 to 300 male births appear this problem. The aim of this study is the best quality of nursing management. It is proved that the child recover earlier when the parents involved in care, so it is important to explain the procedure, educate parents about the care after leaving the hospital and to make sure that there are no questions unanswered. The new techniques, the nursing management and the parents' contribution in care promote to reduce hypospadias hospitalization and so, the less suffering.

**KEY-WORDS:** Urinary system, surgery, paediatric nursing, catheter, treatment, home dressing removal.

**Introduction**

The children as hospitalized patients need special care not only because they are in a stage in which they built their bodily systems but also because they don't understand what happened to them, where they are and who all this strange people around them are.

Nurses should approach them properly for gaining their trust and then take care of them. Parents are the only persons who the children trust, so it is important for nurses to collaborate with them for achieving a better quality of care for their patients. In this collaborative process, nurses have to educate parents how to reduce their stress and how to

give support to their child. This article aims to describe the way in which nursing care can improve the patient journey for children with hypospadias and their families.

Hypospadias is a common abnormality in boys with an incidence in the general population estimated at 3 to 4 per 1000 live births (Thomas and Barker, 1997, Caroline Sanders 2006). Hypospadias refers to a condition in which the urethral opening is located below the glans penis or anywhere along the ventral surface (underside) of the penile shaft. (Whaley 1997)

The reason why the penis does not develop properly is still not clear, but it is most likely polygenic because of the higher familial

incidence. The development of the penis whilst the baby is growing in the womb is partly dependent on the male sex hormones such as testosterone. The effects of the testosterone on the growing penis may be blocked in some way. Genetic factors are likely involved in at least some cases, as there is about 7% familial recurrence risk. (Duckett 1982)

Historically, classification of Hypospadias has been based on meatal position. The types of hypospadias are: glanular, coronal, distal, mid, and proximal shaft, penoscrotal, scrotal, and perineal. (Duckett 1982)

Surgical correction is necessary to repair the defects (restore the urethral meatus to its normal position on the glans, correct penile curvature and create a urethral that allows urination with a controlled stream). There are 300 different operations for hypospadias repair being cited in the literature (Winslow Devine, 1996). However, Magpi, Mathieu, Duckett, Snodgrass and Onlay Island flap repair are common one-stage repairs. Ultimately the nature of the repair is a consultant decision and is influenced by the position of the meatus, the position of distal urethra, the presence or absence of associated chordee and the quality and size of the foreskin (Sanders 2006)

The repair is being done at progressively younger ages between 6 to 18 months of age, to minimize the traumatic effects of this experience. (Ball 1995)

Some complications of this surgery are: meatal stenosis and urethrocutaneous fistula. (Duckett 1982)

### How to Inform Parents?

Parents need information about the forthcoming procedure, such as length of stay, outcome of operation and management at home. Pre-admission information and education about a forthcoming procedure tends to complement the delivery of a good quality service. (Price, 1991). Nurses and doctors provide the necessary information however the parents because of their stress or because of the lapse of the time between

assessment and admission can lead to the family generating questions that need answering, and this may further heighten anxiety. Written information is important, but it needs to be relevant and accessible to the family (Crawford, 1992). This information helps the parents to feel more confident because they curb the main points care.

Multimedia sources including the internet can provide information about variance in surgical approaches, timing of surgery and outcome. Although this information may confuse them and some sources may be inaccurate or unreliable. A list of reliable places in internet where parents can inform, it would be necessary to be provided.

### Dressing Removal

There are many different types of hypospadias dressings: all are designed to protect the suture line, reduce swelling and immobilize the penis.

<b>Home dressing removal protocol</b>
A full explanation regarding dressing removal is given to parents prior to discharge.
Parents are advised that the penis may look red and swollen following dressing removal.
Photographs of a penis following dressing removal are shown.
Dressings are removed in the home at a pre-arranged time.
Families are contacted half an hour before dressing removal and asked to administer the prescribed analgesia and put the patient in the bath with the dressing fully submerged.
Dressings and stent are removed.
Parents are given written and verbal information regarding wound care and returning to normal activities.
Parents are given advice regarding the administration of regular analgesia.
Parents are given advice regarding increasing their child's fluid intake.
Parents contact the urology nursing service when the child has passed urine.

If a dressing is too tight, it has the potential to cause pain and possibly necrosis of some parts of the penis by vascular occlusion. The length of time that the dressing will remain in place is determined by the individual repair performed and is specified by the consultant following surgery, the time span being usually between two and 10 days. It is difficult to anchor a dressing to the area, especially when the child is an active toddler. Although the child is not encouraged to be mobile and is nursed in a pushchair, a cot or a playpen, it is very difficult to practicably manage, and parents do become stressed trying to minimize activity.

Many families identified removal of the catheter and dressing a stressful event. Parents used words such as traumatic, very stressful and distressing. Despite children being given analgesia and the use of distraction, this aspect of admission remained of greatest concern to many parents and carers. It is recognized that removal of dressings and catheters post-operatively has the potential to be painful for the child and stressful for the family. McLorie *et al* (2001) reported significant pain at removal with both biofilm and compression dressings.

PARENTS TEACHING
Use the double-diapering technique, to protect the stent (the small tube that drains the urine)
Restrict the infant or toddler from activities (e.g. playing on riding toys) that put a pressure on the surgical site. Avoid holding the infant or child straddled on the hip. Limit the children activity for two weeks.
Encourage the infant or toddler to drink fluids to ensure adequate hydration. Provided fluids in a pleasant environment or using a special cup. Offer fruit juice, fruit-flavored ice pops, fruit-flavored juices, flavored ice cubes, and gelatin.
Be sure to give the complete course of prescribed antibiotics to avoid infection.
Watch for signs of infection: fever, swelling, redness, pain, strong-smelling urine or change in flow of the urinary stream.
The urine will be blood tinged for several days. Call the physician if urine is seen leaking from any area than the penis.

Difficulties post operatively, such as pulling on the catheter, urinary obstruction/blocked catheter, erections, straining due to constipation and interference with dressings, can influence surgical outcome negatively (Grobelaar *et al* 1996). Positive management of both the dressing and catheter is important to possibly minimize failure of surgery. It would appear that the information given at the pre-admission clinic goes some way to help the family manage the dressing and prepare for the potentially stressful and unpleasant experience of removal, but further study is needed to determine how best to manage a post-operative dressing or, indeed, if one is needed at all.

### Nursing Management

It is important for the nurse to address parents' concerns at the time of birth. Preoperative teaching can relieve some of their anxiety about the future appearance and functioning of the penis.

Postoperative care focuses on protecting the surgical site from injury. The infant or child returns from surgery with the penis wrapped in a pressure dressing and a urethral stent (a device used to maintain patency of the urethral canal) in place to keep the new urethral canal open. Use of arm and leg restraints prevents inadvertent removal of the stent (Wong *et al* 1995).

Encourage fluid intake to maintain adequate urinary output and patency of the stent. Accurate documentation of intake and output is essential. Notify the physician if there is no urine drainage for 1 hour as this may indicate kinks in the system or obstruction by sediment. Pain may be associated with bladder spasms. Anticholinergic medications such as oxybutynin or hyoscyamine may be prescribed. Acetaminophen may also be given for pain. Antibiotics are often prescribed until the urinary stent falls out.

Patients are often discharged within 1 day of surgery. Discharged teaching should include instructions for parents about care of the reconstructed area, fluid intake, medication

administration, and signs and symptoms of infection. Inform parents of the need to go to the physician's office for dressing removal about 4 days after surgery.

### Discussion and Conclusion

In order to ensure that parents' and patients' needs were being met, informal discussions with parents would identify areas for service developments. Two main areas for improvement were highlighted: 1) the need for improved pre- and postoperative information. 2) the discovery of a better method of dressing's removal.

Hypospadias is a condition in which the urethral opening is located below the glans penis or anywhere along the urethral surface surgical correction is necessary to repair the defects. After leaving the hospital the nursing care is entrusted to the parents so they must learn how to use the double-diapering technique, them to protect the stent and to urge them to involve in care of their child and to watch for signs of infection. Postoperative care focuses on protecting the surgical site from complications and injury.

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