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Original Paper

Stented versus Non-Stented Snodgrass Urethroplasty for Distal Hypospadia Repair

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Keywords: Hypospadia · Urethroplasty · Stent · Tubularized incised plate · Snodgrass · Complications

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Abstract

Background: Hypospadia is one of the most common congenital anomalies in children. Patients with distal hypospadias can be treated successfully with a tubularized incised plate (TIP) urethroplasty, usually with a postoperative urethral stent to divert urine into the diaper or a urine bag for approximately 1 week. However, these stents have their own morbidity and complications. We therefore tried to determine the safety of distal penile hypospadias repair without the use of a postoperative stent. ***Patients and Method:*** Fifty patients with distal penile hypospadias were prospectively assessed from May 2016 to August 2018. All patients underwent Snodgrass urethroplasty by the same surgeon. Half of the patients had a postoperative stent for 1 week. The other half had no stent. Clinical follow-up was over 6 months with an emphasis on possible stent related complications. ***Results:*** Fifty children underwent TIP urethropla

repair. The mean age was 5.9 years (range 2–12). In 25 cases, a stent was removed within 1 week. In the other 25 cases, no postoperative stent was placed. The overall complication rate for the stented group was 48% (*n* = 12) and for the non-stented group 68% (*n* = 17), respectively. In the stented group, 1 patient (4%) developed a fistula, whilst there were 2 (8%) in the non-stented group. All fistulas were repaired after 6 months postoperatively. Neourethral stenosis and glans dehiscence occurred in each 1 case (4%) in both groups. Differences were not statistically significant. However, there were significantly more wound infections in the stented group. On the other hand, stents prevented temporary urinary retention which occurred in 2 patients in the non-stented group. ***Conclusion:*** Despite the limited number of cases, our study suggests that, all in all, there is no significant difference in severe complication rates regardless whether a postoperative stent is used or not.

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Abstract
Background: Hypospadia is one of the most common congenital anomalies in children. Patients with distal hypospadias can be treated successfully with a tubularized incised plate (TIP) urethroplasty, usually with a postoperative urethral stent to divert urine into the diaper or a urine bag for approximately 1 week. However, these stents have their own morbidity and complications. We therefore tried to determine the safety of distal penile hypospadias repair without the use of a postoperative stent. *Patients and Method:* Fifty patients with distal penile hypospadias were prospectively assessed from May 2016 to August 2018. All patients underwent Snodgrass urethroplasty by the same surgeon. Half of the patients had a postoperative stent for 1 week. The other half had no stent. Clinical follow-up was over 6 months with an emphasis on possible stent-related complications. *Results:* Fifty children underwent TIP urethroplasty for distal hypospadia repair. The mean age was 5.9 years (range 2–12). In 25 cases, a stent was removed within 1 week. In the other 25 cases, no postoperative stent was placed. The overall complication rate for the stented group was 48% (*n* = 12) and for the non-stented group 68% (*n* = 17), respectively. In the stented group, 1 patient (4%) developed a fistula, whilst there were 2 (8%) in the non-stented group. All fistulas were repaired after 6 months postoperatively. Neourethral stenosis and glans dehiscence occurred in each 1 case (4%) in both groups. Differences were not statistically significant. However, there were significantly more wound infections in the stented group. On the other hand, stents prevented temporary urinary retention which occurred in 2 patients in the non-stented group. *Conclusion:* Despite the limited number of cases, our study suggests that, all in all, there is no significant difference in severe complication rates regardless whether a postoperative stent is used or not.

Introduction

Hypospadia is considered the most common congenital malformation of the male urethra with an incidence of 1 in every 300 male births.

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