



## Long-term male sexual life stage after childhood hypospadias repair: survival curve analyses

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**Aim of the Study:** To evaluate factors associated with achievement of sexual intercourse, marriage, and paternity in hypospadias patient who have reached adulthood.

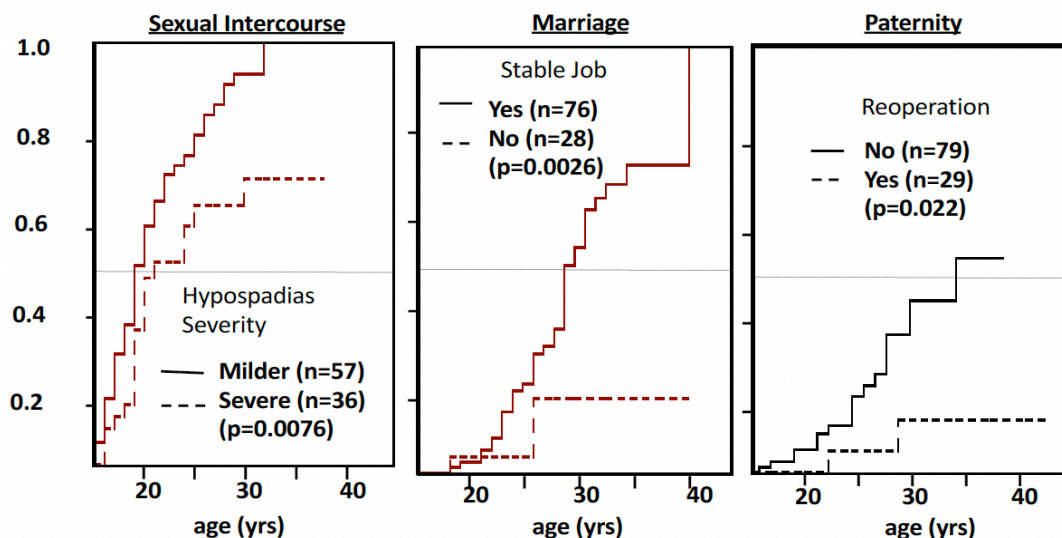
**Methods:** A self-entry questionnaire was mailed to hypospadias patients aged  $\geq 18$  years at the time of the study who had been treated at our institution during childhood by a single surgeon and the same surgical policy, between 1983 to 1998. Candidate factors were analyzed using univariate and multivariate proportional hazard models, along with log-rank test of Kaplan-Meier curves.

**Results:** Of the 518 patients contacted, 108 (aged 18–50 years, median, 28 years) returned evaluable response. Survival analyses curves of Kaplan Meier curves visualized serial occurrence of male life stage event. Multivariate analyses and log-rank tests confirmed that sexual intercourse experience was associated with milder type of hypospadias, marriage was associated with a stable job, and paternity was associated with absence of reoperation after completion of the initial repair (Figure1). In subgroup analysis for paternity, the history of reoperation for obstruction negatively affected the paternity rate and was associated with subjective bother on ejaculation.

**Discussion:** Sexual intercourse is determined by biological masculinity (hypospadias severity) and marriage was determined by social maturity (stable job). Paternity was affected by childhood reoperation for stricture, which may affect ejaculation in adulthood.

**Conclusions:** Though survival analysis has not been utilized for hypospadias study, it enables application of statistical analysis method used in other fields of medical sciences, and persuasively visualize chronicle of male sexual life stage and its determinants.

**Figure Determinant factors for sexual intercourse, marriage, and paternity after childhood hypospadias repair (p-value by Log-rank tests)**





### Neourethral stricture in adulthood: experience in an single adult and pediatric hypospadias center

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**Purpose:** A limited number of hypospadias patients develop neourethral stricture in adulthood. However, most of the report derives from adult urology center.

**Method:** We retrospectively examined the treatment course of adult patients who visited our department from 2011 to 2023 for neourethral stricture after childhood hypospadias repair.

**Results:** Thirty-five cases were identified. The median age at visit or re-visit for neourethral stricture was 38 years old. The stricture length was 5 to 80 (median 30) mm. The strictures were located 1 distally, 16 junctional, and 17 in entire neourethra. Childhood initial surgeries for hypospadias were performed in our Hospital in 15 patients, and elsewhere in 20, primarily with preputial flap or grafts. Treatment flow is shown in the Figure. Urethral self-dilation was selected as initial treatment in 13, of which 7 are continuing. Open surgical revision was done in 28 patients, at 37.5±11.3 (median 38.5) years. Twenty-two patients underwent urethroplasty, primarily with oral mucosal graft. Mentally retarded or elderly with little chance for sexual activity underwent 5 urethrostomy and 2 urethral cutback procedure.

**Discussion:** Self-dilation was, though transient, selected by younger and sexually active patients, because of minimal suspension in working and sexual life. Urethroplasty is a curative reconstruction, though donor site morbidity and risk of re-stricture do exist. Patients with post-hypospadias neourethral stricture comprise from socially and sexually heterogeneous population, and treatment choice must be individualized on patients’ needs.

**Figure. Treatment flow of adult neourethral stricture after childhood hypospadias repair**

