Long-term urological and psychosexual outcome of men born with hypospadias


Key messages
- Few patients regret childhood hypospadias surgery
- Postpubertal revision is warranted, due to long-term complications
- Aesthetic outcome is rated differently by parents and physician, so should always reflect both aspects

INTRODUCTION
According to EAU’s guidelines, hypospadias repair is best performed between 6 and 18 months of age. However, childhood genital surgery is becoming increasingly controversial. Yet, little is known about the long-term patient satisfaction or urological outcome following hypospadias surgery.

AIMS
To examine the psychosexual and urological outcome of young adult men (16-21 years old) born with all forms of non-syndromic hypospadias as compared to healthy controls, as well as patient and parental satisfaction following hypospadias surgery.

METHODOLOGY
Design: Cross-sectional assessment
Centers: Ghent University Hospital and Vienna Medical University

Psychosexual: Participants; the Decision Regret Scale (DRS), Penile Perception Score, Sexual Quality of Life - Male, International Index of Erectile Function and a custom-made questionnaire. Parents: The DRS and custom-made questionnaire; Urological: uroflow, postmicturional and testicular ultrasound and genital examination (HOPE score)

Statistics: IBM SPSS® 25.0: Pearson correlation, unpaired t-test, Mann-Whitney-U test or chi-square test, as appropriate

RESULTS

Hypospadias repair
- Childhood repair:
  - All but one midshaft case find it normal that parents decide

Figure: Distribution of answers on the question ‘how happy you had the hypospadias repair?’

Regret:
- DRS correlations Cases Parents
  - P  P  P  P
  - DRS parents 0.357 <0.001 NA NA
  - Number of surgeries 0.189 0.012 0.282 <0.001
  - Stretched penile length -0.169 0.049 -0.007 0.269
  - PPS: penile appearance 0.263 <0.001 0.206 0.007
  - IIEF-5 -0.165 0.123 NA NA
  - SQoL-M -0.423 <0.001 NA NA

- Worries:
  - Parents: 95/189 (50.3%) worry about their son’s fertility, sexual experience and/or puberty / masculinity
    - Complicated: 13/19 (68.4%)
    - Proximal: 17/23 (73.9%)

Psychosexual
- Mocked:
  - 50/192 cases (26%) fear being mocked when naked
    - 19 (9.9%) have been mocked
  - Higher in proximal and complex hypospadias:
    - Fear: 12/23 (52.2%) and 12/20 (60%), respectively
    - Mocked: 4/23 (17.4%) and 4/20 (20%), respectively

IIEF-5:
- No difference in IIEF-5 score was found between cases and controls, nor between controls and proximal or complex hypospadias (NS)

SQQl-M:
- No difference case/control & complex (NS)
  - Proximal hypospadias cases had significantly lower scores as compared to distal hypospadias (p=0,023) and non-significantly lower than controls (p=0,051)

Urological outcome
- Suboptimal penile appearance: PPS: HOPE
  - Hypospadias: 25/192 (13%) 41/192 (21.4%)
  - Distal 16/132 (12.3%) 18/132 (13.6%)
  - Midshaft 3/37 (8.1%) 8/37 (21.6%)
  - Proximal 4/23 (17.4%) 15/23 (65.2%)
  - Complex 3/20 (15%) 11/20 (55%)

Testicular microcalcifications:
- Hypospadias: 13/192 (6,8%)
- No difference: Controls (6%); Severity of hypospadias (NS)

Uroflow:
- Abnormal: 36/192 (18,8%)
- No difference: Severity of hypospadias (NS)
- Only 5 with residue (no proximal cases)

Genital exam:
- Fistulae: 11/192 (5,7%)
  - No difference severity hypospadias (NS)
  - Residual hypospadias: 47/192 (24,5%)
  - More in proximal hypospadias (52,2%, p=0,003)

CONCLUSIONS
Very few patients regret having had hypospadias surgery in childhood. Patients and physicians value outcome of hypospadias surgery according to different criteria. We found a high rate of varicocele post hypospadias surgery of unclear origin so far. Our data highlight the need for postpubertal revision of hypospadias cases as long-term complications may occur that require surgical intervention at some times. In some cases, psychosexual counseling may be recommended.

Participants

Hypospadias N=192
- Distal: 132/192 (68.8%)
- Midshaft: 37/192 (19.3%)
- Proximal: 23/192 (12.0%)
- Complex: 20/192 (10.4%)

Controls N=50

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