

HPPS: A VALIDATED SCORING SYSTEM FOR EVALUATING COSMETIC RESULT AFTER HYPOSPADIAS SURGERY

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Objective: To determine the validity, reproducibility and results of a scoring system assessing the cosmetic outcome after modern hypospadias repair.

Patients and methods: The study population consisted of 91 patients operated in 2004 with a TIP-repair for distal- or midshaft-type hypospadias. Excluded were patients with fistula (n=3, 3%) or other complications (n=3, 3%). A total of 45 patients responded to participate and were reviewed at a mean follow-up of 10 (range 5-16) months.

Photographs from 4-5 different views at each penis were independently assessed by a panel of 4 paediatric urologic surgeons and 2 residents using the Hypospadias Penile Perception Score (HPPS). We developed this scoring system to evaluate the satisfaction with penile appearance and incorporates the respective 5 items: the meatus, glans, penile skin, penile straightness and penile appearance in general. The HPPS ranges from a minimum score of 1 to a maximum of 10. The interobserver variation, intra-observer variation and validity were analyzed. The parent(s) of each patient also completed the HPPS-questionnaire.

Results: The HPPS assessment gave a mean score of 7.4 (4.8-10) by the parents and a lower score of 6.35 (3.9 -8.9) by the panel. The parents and panel were least satisfied about the penile skin with respective mean scores of 6.1 and 5.3.

The interobserver and intra-observer variation in the panel was respective a Pearson correlation of 0.81 indicating a good agreement among observers and a correlation of 0.75 indicating a reasonably good reproducibility. The validity score by the panel demonstrated a Spearman rank correlation of 0.82 indicating a good validity.

Conclusions: Parents are reasonably satisfied with the cosmetic result. The surgeons and residents are less satisfied compared to the parents. The HPPS system has a good validity and reproducibility supporting its utility as a balanced outcome measure of the cosmetic result after hypospadias surgery.

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