

47 Hypospadias - are we as good as we think?

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Introduction & Objectives: No cause has yet been discovered for hypospadias, but multiple hypotheses have been taken into account such as: family history, maternal age of over 35 years, exposure to certain drugs and chemicals during pregnancy and genetic anomalies. Many surgical techniques have been postulated as a treatment for this condition, aiming to have as small a percentage of complications as possible, but there is still no consensus regarding the best type of procedure.

The aim of this study is to underline the importance and necessity of a Center of Excellence in the diagnosis and management of hypospadias, by comparing from multiple points of view the patients admitted initially in the Pediatric Surgery ward of the “Grigore Alexandrescu” Clinical Emergency Hospital for Children (CEHC) - per primam admissions and patients that have been operated on in other centers, that have been referred to this ward for the treatment of complications.

Materials & Methods: The study includes 848 patients, divided into two groups: 171 patients that have been referred for the treatment of complications, and 677 patients that have been admitted and managed exclusively in the Pediatric Surgery ward of the CEHC. The statistic analysis has been made using GraphPad Prism 7.

Results: The children belonging to the per primam admission group were operated on at a much younger age (32.65 months, n=677 vs 83.05 months, n=171, $p < 0.0001$). In addition, the patients that had been previously operated on had undertaken the surgery at a much higher grade of hypospadias, generally 2, compared to the per primam group, where we chose to operate starting with grade 1 ($p < 0.0001$). It is worth mentioning that the patients that had been previously operated on in other wards had undertaken between 1 and 20 procedures, with a mean of 2 to 3 operations. The patients managed solely in the CEHC underwent between 1 to 6 procedures, with 79.46% having just one operation. After the first intervention, the per primam admissions group had a much lower rate of postoperative complications, compared to the other group (19.44% vs 27.2%). The frequency of distribution of the complications in the two groups was significantly higher in the group of patients having re-interventions ($p = 0.0003$, RR=0.59). One can interpret this value as being highly protective, shielding future patients from complications, if it is decided they should receive surgical treatment in a center with experience in the management of hypospadias. In both cases, the most frequent complications were fistulae and stenoses, but their frequencies of distribution seem to be equally divided ($p > 0.05$).

Conclusions: In conclusion, the simple gesture of deciding to seek treatment in a center with great experience in the management of a condition so heterogeneous, both clinical and outcome-wise, is a way of preventing a significant percentage of both major and minor complications.