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**Introduction & Objectives:** The incidence and prevalence of urinary stone disease in the pediatric population is on the rise. Nevertheless gaining experience with this small population is difficult. The experience of our center shows, however, that the risk of complications in the pediatric population is not higher than among adults. This paper is to present single center experience in complications after URSL in children under 12 years old.

**Materials & Methods:** A retrospective analysis of the results of URSL performed in 105 children aged 0 to 12 years in 2015-2018 was conducted. Complications like hematuria; UTI; pain; subcapsular fluid; damage, perforation and stenosis of ureter were observed.

**Results:** The efficiency of URSL in our center is 94,28%. In 85/105 patients temporary hematuria was observed no longer than 2 days. UTI occurred in 10,47%. Antibiotic was administered with very good result. In 4 patients under 3 years of age subcapsular fluid occurred. In USG examination the fluid was hypoechogenic, up to 10 mm wide. After 2-3 weeks of conservative treatment complete regression occurred. In 4 patients intraoperative iatrogenic damage of ureter mucosa occurred. In these cases DJ stent was left for 3-4 weeks with very good result. 3 complications grade IVb according to Clavien-Dindo classification occurred, that were 2 perforations in 4 and 6 year old patients and one ureter stenosis in 4 year old patient. In all 3 cases the stones were located proximally. In first case damage of ureter wall was diagnosed intraoperatively and the procedure was converted to open surgery. In the second case intraoperatively an extensive edema of ureter mucosa was observed. No intraoperative perforation was detected. After procedure DJ stent was left. 2 days later in USG examination fluid around the ureter was described. The patient condition was very good. Because of unclear picture uroCT was performed. Passage of DJ through the ureter wall and localization outside the renal pelvis was visualized. Urgent open surgery was performed. In both cases the result is very good after one year observation. Ureteral stenosis was observed in 4 year old girl after 2 months from URSL. Thickening of the ureter wall and widening of the pelvis up to 27 mm were observed so the decision to insert DJ was made. Stenosis of the ureter was so advanced that only 3 Ch stent could have been introduced and it was changed every 2 months to a larger one up to the size of 4.7Ch. The last DJ was removed after 2 month. On control USG after 1, 2 and 3 months of DJ removal the renal pelvis diameter is 9-12 mm AP and keeps constant, however this child requires further observation.

**Conclusions:** URSL in prepubertal children is difficult and requires skilled urologist, however our experience shows that in the hands of a professional surgeon the complications and its frequency in this group do not differ from the ones in adult population.