Results: Our total success rate at initial voiding cystourethrogram was 73% (246 of 337 total ureters). The success rate in the first half of our experience was 65.9% (112 of 170 ureters) and in the second half was 80.2% (134 of 167). A total of 150 ureteral units with initial successful dextranomer/hyaluronic acid treatment were evaluated at 1 year by voiding cystourethrogram. Of these ureters 111 had continued resolution of vesicoureteral reflux, for a long-term success rate of 74%. Including initial postoperative failures, the complete 1-year total success rate was 46.1% (111 of 241 ureters).
Conclusions: Although the reflux resolution rates at initial postoperative voiding cystourethrogram approach those of open surgery, there is a significant failure rate at 1 year, which warrants long-term followup.

Editorial Comment

This manuscript shows an almost 4-year experience with 219 patients and 337 ureters. The 6-12 week postoperative VCUGs showed a success rate of 73% and a one year VCUG on the same patients who had initial resolution showed a lower 74% success rate. Considering the overall patients altogether, the total success rate at one year was 46.1%. 74 of their 219 patients dropped out of the study and did not complete the VCUG at one year after surgery. The authors did note that switching to the HIT technique improved their early success from 65.9 to 80.2%. However, at one year after surgery their success rate was essentially identical at 74.2 and 73.8%. There was no statistical difference in STING versus HIT techniques in their study. If the data was broken down by grade of reflux, 100% of Grade I reflux was gone one year later, and 79.8% of Grade II reflux was gone one year later. Grade III reflux was 37.2%. The authors suggest that Deflux may be considered in low-grade refluxes but the long-term outlook for higher grades of reflux is particularly disappointing.

This manuscript brings into question the long-term success of injection therapy for reflux and in particular, the need for long-term radiographic follow up for these patients. If the criterion for success is absence of reflux, Deflux treatment will need to be reconsidered by those who take care of this disease in children.

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Long-term outcome of laparoscopic Fowler-Stephens orchiopexy in boys with intra-abdominal testis

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Purpose: We reviewed the records of 36 pediatric patients operated on between 1990 and 1997 for high intra-abdominal testes, using the 2-step Fowler-Stephens procedure via laparoscopy.
Materials and Methods: Patients were followed for 10 to 17 years. Three patients who had undergone the second stage by open procedure were excluded from study. The 33 remaining patients were contacted by telephone, and 12 (7 with right and 5 with left intra-abdominal testes) agreed to undergo clinical and instrumental examination. Patient age ranged from 13 to 26 years (average 14.7). All patients underwent clinical examination and volumetric measurement of both testes using color Doppler ultrasound.
Results: Two of the 12 patients (16.7%) had an atrophic testis in the scrotum and 10 (83.3%) had a viable testis in the scrotum. The operated testis was always smaller than the normal testis, despite the good vascularization

detected on echo color Doppler ultrasound. One patient had ultrasound evidence of bilateral microcalcifications with normal vascularization. Mann-Whitney test showed there was a statistically significant difference between the volume of the operated testis and the normal testis.
Conclusions: It is extremely difficult to perform studies on the long-term outcome of surgical procedures. We describe the outcome at more than 10 years postoperatively, and demonstrate that greater than 83% of patients who underwent a 2-step Fowler-Stephens procedure using laparoscopy had satisfactory results. The operated testis was always significantly smaller compared to the normal testis but was well vascularized.

Editorial Comment

The authors reviewed laparoscopic Fowler-Stephens orchiopexy results for a total of 36 patients in their series with 10-17 years of follow up. 33 of the patients had 1st and 2nd stage Fowler-Stephens procedures done laparoscopically. 13 of the 25 available patients refused clinical follow up reporting a viable testis in the scrotum. 12 patients agreed to follow up. 2 had atrophic testicles and 10 had testicles in the scrotum, 7 in the lower scrotum and 3 in the upper median part of the scrotum. Ultrasound showed bilateral microcalcifications in both testicles of 1 patient with normal tumor markers. Each of the operated on testicles showed good blood flow in the scrotum, however the operated on testicle was always smaller than the contralateral testicle.

It is interesting that 83.3% of the patients had viable testes greater than 10 years after staged laparoscopic Fowler-Stephens orchiopexies. It is disappointing that semen analyses were not available on these patients and history of fertility was not available due to the age of the patients. It is rewarding to note that Fowler-Stephens orchiopexies have good results and good long-term outcomes and the procedure should be considered with enthusiasm.

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