started on postoperative day 7, and the dose was tapered toward day 30. Results of liver function tests on days 31 and 60 were compared between the groups. Mean bilirubin, AST, ALT, and GGT levels did not significantly differ between the groups. However, the levels of total and direct bilirubin of infants <70 days old at surgery significantly differed between the groups. Four patients from group A and five from group B, dropped out of the study. Complications during the first month after portoenterostomy were comparable between the groups. The authors conclude that an initial 4 mg/kg/day dose did not significantly improve liver function, except that bilirubin levels were lower in the subgroup of infants <70 days old at surgery. There were no significant complications with either dose of corticosteroids.—Federico G. Seifarth

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Multi-institutional analysis of long-term symptom resolution after cholecystectomy for biliary dyskinesia in children

Current literature for resolution of abdominal pain after cholecystectomy in children with biliary dyskinesia shows variable outcomes. The investigators sought to compare early outcomes with long-term symptom resolution in children. Telephone surveys were conducted on children who underwent cholecystectomy for biliary dyskinesia between January 2000 and January 2011 at two centers. Retrospective review was performed to obtain demographics and short-term outcomes. Charts of 105 patients’ age 7.9-19 years were reviewed; 80.9% were female. All were symptomatic with an ejection fraction (EF) <35% or pain with cholecystokinin (CCK) without a modiﬁcation of symptoms. Fifty-six (53.3%) patients were available for follow-up at median 3.7 (1.1-10.7) years. Of these, 34 (60.7%) reported no on-going abdominal pain. Of the 22 patients with persistent symptoms, satisfaction score was 7.3 ± 2.7 (scale of 1-10) and 19 (86.4%) were glad that they had a cholecystectomy performed. EF, body mass index percentile (BMI %), and pain with cholecystokinin (CCK) were not predictive of on-going pain at either follow-up periods. The authors conclude that short-term symptom resolution in children undergoing cholecystectomy for biliary dyskinesia is not reﬂective of long-term results. Neither EF, BMI % nor pain with CCK was predictive of symptom resolution. The majority of patients with on-going complaints do not regret cholecystectomy.—Federico G. Seifarth

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Genitourinary Tract

Postpubertal examination after hypospadias repair is necessary to evaluate the success of the primary reconstruction

The aims of surgical treatment of hypospadias are good urinary and sexual function as well as an acceptable aesthetic result. Many studies describe a successful initial repair, but longterm urinary and particularly sexual function cannot be evaluated. The aim of the study was the evaluation of patients with clinical examination after puberty. The study population included boys reconstructed due to hypospadias between 1989 and 2011. Balanic hypospadias were corrected according to the technique of Mathieu, distal hypospadias according to Scuderi, for penoscrotal or perineal types of hypospadias a modiﬁed Byars two-stage reconstruction was used. A shift over time from two-staged to one-stage procedures for selected suitable cases was reported. A standard protocol included visits at age 7, 10, 13 and 16 years of age with examination and interview according urinary and sexual function and uroﬂow examination. A ﬁve-point scoring system was used with mental location and shape, urinary stream, straightness of erection, and presence/complexity of urethral ﬁstula as evaluated aspects.

114 out of 149 patients were included in the study. The median age at reconstruction was 5 years (range 4-16 yrs.). The overall ﬁstula frequency was 11%. Median age at the concluding visit was 16 years. 95% showed an acceptable result, but 28% (N=34) had various shortcomings or complications at the concluding visit with incontinence (6 – 10P), urethral stricture (4 – 40P) or uncorrected ﬁstula (2), aesthetic problems (12 – 10P), spraying (8 – 10P) or minor complaints regarding micturition (3). In 7 of them an additional surgery was done. The study conﬁrmed the hypothesis that the degree of hypospadias is the most decisive factor for complications after repair. The authors preferred a robust two-stage reconstruction with few complications over an early one-stage procedure, but stated some drift in there management to one-stage operations.

The meatus was in glanular position in 96%. Patients with a vertical meatal shape had 95% excellent results, such with a circular shape 85%, 5% with a straight penis before puberty developed an incurvation. Therefore reconstruction cannot be considered ﬁnal until the boys have passed puberty. A planned routine follow-up program is important because most of them do not approach the health care system spontaneously. That will be beneﬁcial for psychological and educational purposes as well.—P. Schmitthenbecher

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Neoadjuvant human Chorionic Gonadotropin (hCG) therapy may improve the position of undescended testis: A preliminary report

The authors evaluated the effectiveness of neoadjuvant therapy with chorionic gonadotropin (hCG) in boys with undescended testicles (UDT) regarding position of the testis before and after treatment. Records of 204 boys (229 treated gonads), median age 6.6 years (SD ±3.4) with UDT; 179 (87.7%) with unilateral and 25 (12.3%) with bilateral defect treated at the University Children Hospital No. 4 in Lodz, Poland in the years 1994-2008 were analyzed. One hundred and three boys (119 gonads - 51.9%) underwent orchiopexy alone, while in 101 boys (110 gonads - 48.1%) intramuscular neoadjuvant hCG-therapy was applied. Boys in the hormonal therapy group were signiﬁcantly younger than patients of surgical treatment group (t=4.346, p=0.000). The testicle position was designated before and one year after therapy as abdominal, upper inguinal, lower inguinal or scrotal. Follow up period ranged from 2 to 16 yrs. Out of 110 testes (101 boys) after hCG-therapy, 90 (81.8%) moved at least one level down (chi=72.391, p=0.000). Forty-nine (44.5%) of these gonads descended to the scrotum (chi=42.423, p=0.000) and these 44 patients did not required surgery. The remaining 61 testes (55.5%) did not reach the scrotum and these 57 boys underwent orchiopexy. The efficacy of hormonal treatment did not depended on initial position of UDT (p=0.43, p=0.04, p=0.97). Only 7 orchidectomies of dysgenetic testes (3.1%) were performed in the entire group. Neither type of treatment nor initial position of the testicle inﬂuenced future gonad atrophy (p=0.5, p=0.979). In 44.5% of
Evaluation of TGF-β1, CCL5/RANTES and sFas/Apo-1 urine concentration in children with ureteropelvic junction obstruction


Authors measured urinary levels of soluble biomarkers: TGF-β1, CCL5/RANTES and sFas/Apo-1 in 45 patients (ages 1 month to 18 years) undergoing ureteropeloplasty for ureteropelvic junction obstruction (UPJ), before and one year after surgery. Levels of measured biomarkers were higher in the renal pelvis and bladder of children with UPJ obstruction as compared to normal controls: TGF-β1 in older children and adolescents (p<0.05), CCL5/RANTES in youngest and older children (p<0.05), sFas/Apo-1 in all patients (p<0.05). Twelve months after surgery the levels of biomarkers in the bladder decreased: TGF-β1 in younger and older children (p<0.05), CCL5/RANTES in youngest patients and adolescents (p<0.05), sFas/Apo-1 in youngest and older children (p<0.05). A significant decrease in the antero-posterior diameter of the renal pelvis post-operatively (32.09 vs. 18.72mm) (p<0.01) and significant improvement in renal function (36.94 vs. 42.76%) (p<0.05) was observed in the entire examined group. No correlation was found between AP diameter of the renal pelvis, the differential function of the affected kidney and the bladder urine levels of examined factors before or twelve months after surgery. As mean TGF-β1, CCL5/RANTES, and sFas/Apo-1 levels in the bladder decreased one year after ureteropeloplasty, in authors’ opinion they may be clinically useful markers of obstruction.—Jerzy K. Niedzielski

Functional-conservative treatment of extra-articular physeal fractures of the proximal phalanges in children and adolescents


Fractures of the proximal phalanges of the fingers are very frequent pediatric injuries. The majority can be treated by closed reduction and splinting. The limited capacity for remodeling of rotational deformities and frontal displacement are well known. In adults well-aligned extraarticular fractures can be effectively treated using functional-conservative casts if the surrounding soft tissues are intact and the advancement and tightening of the extensor hood is combined with taping to an unaffected adjacent finger. The authors used this treatment modality in children and compared an usual forearm splint with a special “Lucerne cast” (LuCa) allowing free mobilization of the wrist joint.

In a one year period 13 patients between 7 and 16 years with an extra-articular physeal fracture of the proximal phalanges were included in the study. 9 had a Salter- Harris type II fracture, 4 a juxta-epiphyseal fracture. Reduction was achieved under digital block anesthesia. Immobilization was done either with a semirigid dorso-palmar plaster splint with the wrist in 30° extension and the metacarpo-phalangal joint blocked in 70-90° flexion, or with a semirigid circular metacarpal cast leaving wrist motion as well as the MCPJ unblocked in 70-90° flexion crease uncovered while the MCPJ was dorsally blocked in 70-90° flexion and distal palmar flexion crease uncovered while the MCPJ was dorsally blocked in 70-90° flexion and allowing free mobilization of the interphalangeal as well the wrist joint. Patients were instructed to mobilize the IP joints actively 20 times the day. X-ray examinations followed at 1, 2 and 4 weeks. Palmar angulations > 25°, axial deviations > 10° or rotational deformities were not accepted. Casts were removed after 4 weeks. Follow-up included a clinical examination at 6 weeks and clinical and x-ray checks at 3 and 6 month.

8 patients were treated with the forearm splint, 5 with the LuCa. At the time of cast removal, a mean finger TAM of 255 degrees (no significant difference) and a mean wrist joint motion of 138 degrees (LuCa 156° vs. FAsp 127°) were achieved. At follow-up after 6 month with a mean TAM of 300° and a mean wrist joint motion of 155°, no significant difference was still documented. No functional disturbance could be evaluated and all children and parents were highly satisfied with the procedure.

Well-aligned extra-articular fractures of the proximal phalanges can be effectively treated using functional casts with the MCPJ blocked in intrinsic plus position and the extensor aponeurosis covering two-thirds of the proximal phalanx. With active finger flexion compression forces are transmitted to the palmar cortex. In this series the wrist joint motion was significantly better at the end of immobilization. The number of patients was limited, but on the