Thirty-three patients, 5.4 per cent, of 606 patients registered with the National Wilms' Tumor Study between 1969 and 1973 were found to have bilateral tumors. Clinical data were compiled on 30 patients by studying age, sex, clinical findings, results of diagnostic roent-genographic studies, status of the patients and extent of initial and subsequent operations, chemotherapy and radiotherapy. The study included 18 girls and 12 boys, four under one year of age, 13 between one and two years and 13 over 24 months of age. Results of intravenous pyelo-gram showed bilateral tumors in 17 patients. All four under one year of age survived two or more years. Twelve of 13 between one and two years of age and ten of 13 patients two years or older survived two years or more.
Chemotherapy consisted of actinomycin D, vincristine and Adriamycin, doxorubicin hydrochloride. All but two of the patients received radiotherapy, up to 3,000 rads. Three different types of surgical procedures were used at initial operation: total resection of all tumors in four patients, unilateral nephrectomy with or without contralateral biopsy in 15 patients and biopsy only in 11.
A remarkable aspect of this study is the two year survival of 87 per cent. Only four of 30 died, and all had widespread metastases.
The efficacy of routine use of radiotherapy was questioned. It was concluded that the surgeon should not be overwhelmed by bilaterality of Wilms' tumor. All efforts should be made to preserve renal function with conservative surgical procedures without excessive radiation.
H. Hahk Kim.

One hundred and fifty urologic complications after gynecologic operations are described, including injuries to the ureter and bladder and urethral fistulas. Three of 54 cystovaginal fistulas-closed spontaneously. A three month interval before any operative corrections is attempted is stressed. The over-all success rate in treating injuries of the ureters was 80 per cent in 62 ureters, using ureteroneocystostomy, Boari's operation and ureteroureteroanastomosis. Ureteral complications were treated at the time of diagnosis. An interval of three months, recommended for fistulas of the bladder, was not applied to ureteral injuries. Fistulas of the urethra were treated as vesicovaginal fistulas.
Rudolf Nunnemann

An innovative technique of visualizing the terminal 2 to 4 cm. of ureters in women is described. Under cystoscopic guidance, small straight Jewett sounds, introduced into the urethra alongside of a cystoscope, were used to dilate the ureteral orifice in five patients. Subsequently, a pediatric cystoscope or resectoscope was introduced into the orifice. In one patient, a small papillary tumor in the intramural ureter was resected. The only complication was in a patient who experienced intermittent ureteral colic that was relieved after the passage of a small blood clot.
Frank B. Mahon, Jr.

Ureteral Silicone Prosthesis (Prostheses ure-terales en silicone; experimentation animale 12 cas, 3
Interest in replacement of the ureter with a silicone prosthesis dates back to 1963 with the utilization of soft silicone that seems to be tolerated remarkably well by tissue. This study describes experiments in 12 instances, with 12 prostheses implanted in six dogs and six in six women with loss of ureteral function caused by carcinoma of the pelvis.

There were nine good results in the clogs, one poor result, one stable dilatation of the implanted ureter and one failure caused by imperfect technique. Analysis of these results confirmed that there was good tolerance of the implanted silicone prostheses, no rejections of the device and, in the instance listed as failure, there were incrustations. Results from use of the new spiral structure were far superior to those obtained with the previous straight prostheses.

The first of the six patients, a 49 year old woman, had a right ureteral stenosis which became progressively worse after a Wertheim operation and radiotherapy. After a spiral, silicone, ureterovesical prosthesis was implanted, results of a one and one-half year follow-up study showed a good result. The second patient, age 51 years, had a ureterovaginal fistula involving the right ureter develop after operation. The patient died three months later from metastasis; however, the fistula was cured, there was no pyuria and she urinated normally.

A 62 year old woman was hospitalized for carcinoma of the cervix. A left ureterocutaneous fistula developed. After the implantation of a ureterovesical prosthesis the fistula was cured. However, a stenosis of the upper portion of the anastomosis appeared. This was revised with a new anastomosis with a good result and a one year follow-up study was reported. The fourth patient was a 52 year old woman suffering from carcinoma of the ovaries and endometrium. After operation and cobalt therapy a high stenosis of the left iliac ureter developed. A left ureterovesical prosthesis was inserted. An intravenous urogram showed a normal left upper part of the urinary tract. She died seven months later of metastasis of the bone.

The fifth observation was a 62 year old female treated with operation and radiotherapy for carcinoma of the uterus. A right ureterocutaneous fistula developed. After the implantation of a ureterovesical prosthesis the fistula was cured. However, a stenosis of the upper portion of the anastomosis appeared. This was revised with a new anastomosis with a good result and a one year follow-up study was reported. The sixth patient, a right ureterovaginal fistula developed as a complication of the treatment for carcinoma of the uterus. The implantation of the prosthesis showed a good result with a ten month follow-up study.

From this limited study and the nature of the short follow-up period, the ureterovesical, spiral silicone prosthesis remains a method of internal urinary diversion. Although further studies are awaited, this prosthesis should become a valuable method of replacement of the ureters.

Conrad A. Kuehn


Experience with 143 patients in whom the lower urinary tract was investigated by uro-flowmetry and micturition studies with simultaneous recording of intravesical and intrarectal pressures is discussed. Roentgenologically, various types of the neurogenic bladder are characterized by specific changes in the posterior urethra. The contour of the urethra changes with duration of the illness, and demonstrable changes of the posterior urethra in children with enure-genic disease of the lower tract sometimes cannot be distinguished from those of children with urethral valves. Flow rates are significantly lower than normal and it is demonstrated that a functional obstruction exists in the neurogenic bladder at the level of the spastic and flaccid pelvic floors. An improvement in urinary performance in patients with neurogenic bladders is generally only possible through a decrease in the expulsion resistance. Various operative procedures for the release of the obstruction of the bladder outlet are discussed.

F. Peter Kohler

A large series of urinary diversions by ileal conduit in children with irreversibly damaged or inadequately functioning lower urinary tracts is presented. One hundred and thirteen children, 17 males and 96 females, underwent operation for deterioration of the upper tract, 62 patients, incontinence, 46, and uncontrollable infection, five. The diagnoses of underlying causes were myelomeningocele in 108, neurogenic bladder postoperatively, two, sacral agenesis, one patient, obstructive uropathy, one, and neurogenic bladder after vertebral infection, one.

The average period of follow-up study was five years, range one to 13 years. Early complications, within 30 days, were seen in almost one-third of the patients. They were most often related to the surgical technique and were corrected. Late complications were again seen in one-third of the patients and were mostly stomal problems; pyocystis developed in 27 patients. Of 82 patients who had results of preoperative and postoperative pyelograms available, 83 percent had improvement or stabilization of the upper tract.

Because it is very difficult to maintain a sterile urine in ileal conduits, chemotherapy was reserved for those with severe infection such as pyrexia, flank pain and leukocytosis. However, 70 percent of the patients with infection preoperatively did not have recurrences. Only three had postoperative infections. With proper selection of candidates, careful operative technique and diligent follow-up study, the ileal conduit was a very effective method of urinary diversion in preventing infection and loss of renal function.

H. Hahk Kim


Pedal lymphangiography was used in the evaluation of 28 patients with carcinoma of the bladder. Correlation of the lymphangiograms with results of histologic examination of the surgically excised pelvic and para-aortic nodes was less than 50 per cent and suggests limited applicability of this diagnostic technique in staging of carcinoma of the bladder.

F. Peter Kohler