

occurs. If we remove the catheter and after that the child is not able to void, it will be necessary to do a recatheterization. Another benefit is related to technical aspects of this procedure. Voiding cystourethrography is a cyclic procedure. Reflex voiding at the beginning of vesical infusion is not uncommon. When this happens although the urethra will be promptly evaluated, the lack of adequate bladder distention may prevent the detection of vesico-ureteral reflux. By leaving the catheter in place we will be able to refill the bladder in order to perform an adequate search for reflux. After studying the posterior urethra and bladder we can always remove the catheter in order to evaluate the anterior urethra.

Reference

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UROGENITAL TRAUMA

Nonoperative management of blunt renal trauma: a prospective study

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Despite the abundance of literature on nonoperative management (NOM) of blunt trauma to the liver and spleen there is limited information on NOM of blunt renal injuries. In an effort to evaluate the role of NOM 37 consecutive unselected patients with renal injuries (grade 1, four; grade 2, 12; grade 3, 11; grade 4, six; and grade 5, four) were followed prospectively over 30 months (March 1999 to September 2001). Patients without peritonitis or hemodynamic instability were managed nonoperatively regardless of the appearance of the kidney on CT scan. Six (16%) patients were operated on immediately but only two (5.4%) for the kidney (grades 3 and 5 respectively). Of the remaining 31 patients 26 (84%) were managed successfully without an operation (grade 1 or 2, 12; grades 3-5, 14). Five patients were taken to the operating room after a period of observation (3, 3.5, 9, 36, and 44 hours respectively) but only three for the kidney (grades 4 and 5). The overall failure rate was 16 per cent (5 of 31); the rate of failure specifically related to the renal injury was 9.6 per cent (three of 31). Compared with the patients with successful NOM the five patients with failed NOM were more severely injured (Injury Severity Score ≥ 15 in 80% vs 27%, $P = 0.04$), required in the first 6 hours more fluids (4.17 \pm 1.72 vs 1.87 \pm 1.4 liters, $P = 0.003$) and blood transfusions (2.40 \pm 2 vs 0.42 \pm 1.17 units, $P = 0.005$), and more frequently had a positive trauma ultrasound (80% vs 11.5%, $P = 0.005$). We conclude that NOM is the prevailing method of treatment after blunt renal trauma. It is successful in the majority of patients without peritonitis or hemodynamic instability and should be considered regardless of the severity of renal injury. Predictors of failure may exist on the basis of injury severity, fluid and blood requirements, and abdominal ultrasonographic findings and need validation by a larger sample size.

Editorial Comment

Prospective trials in genitourinary trauma are rare. This study attempts to show prospectively what at least a dozen studies over the years have shown retrospectively: that in the absence of clinically significant bleeding from the kidney, blunt renal trauma may be treated expectantly. Thirty-seven patients were seen. Only 2 (5%) underwent immediate renal exploration, and both of these patients had nephrectomy, one for a Grade V injury and one for a Grade III injury. Of note, it is my opinion that even this “conservative” center might have managed this patient without exploration of the Grade III injury and might have saved the patient the need for nephrectomy.

Three (8%) patients required delayed surgery after a failed period of observation. Two of these patients had a Grade IV injury, hypotension and abdominal compartment syndrome, and one had a Grade V injury and peritonitis: all were treated with nephrectomy. It is not absolutely clear to me from the text that both of these patient’s problems stemmed from their kidney, but nonetheless nephrectomy was elected.

As we would expect, patients managed without surgery did well. Even 5 (14%) patients with urinary extravasation did well, with spontaneous resolution of the urine leak. Five 5 (14%) of patients with devitalized renal segments also did well without complications.

Although the authors delineate which factors seem to predict failure of nonoperative management, unfortunately this analysis is not very helpful. For instance, the need for fluids and blood resuscitation in the first 6 hours was associated with the failure of nonoperative management: but the ongoing need for blood is likely the same criteria the surgeons used to bring the patient to operation! Not unexpectedly, higher injury severity scores (ISS) and the presence of intraperitoneal fluid on fast ultrasound examination were also associated with the need for operation. None of this analysis is helpful in assisting us in figuring out when our next patient may need surgery, however.

The message of the study is: continue to manage patients with isolated renal injury nonoperatively. Iatrogenic nephrectomy is avoided, complications are low, and the need for delayed surgery uncommon. Keep operating on those patient exsanguinating from the kidney, and those with ureteral or renal pelvis injury.

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Infection of non-operatively managed acetabular fracture via a suprapubic catheter

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Case Report - Abstract not available

Editorial Comment

It finally happened. A documented case of suprapubic catheter infecting a pelvic fracture. While orthopedic surgeons commonly warn of this potential complication, real evidence that it is a concern has never been found in the literature. This case is the first report I have seen documenting that an infected suprapubic tube tract infected a pelvic fracture: in this case a relatively distant acetabular fracture. Most orthopedists, it seems, are worried about the infection of pubic rami fractures.

Because I have not been convinced that suprapubic tubes cause a significant number of orthopedic infections, I do not hesitate to use them when necessary. Those times when I must place an open suprapubic tube (perhaps for posterior urethral distraction injury when I am unable to place a catheter endoscopically) I do modify the way I perform the operation, attempting to keep the catheter as far away from the broken pelvis as possible. I tunnel the catheter out the dome of the bladder, through the peritoneal space, and bring it out of the skin at the most superior location possible - sometimes even supraumbilically.

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PATHOLOGY

Vascular invasion is an independent prognostic factor in prostatic adenocarcinoma

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Background: Prostate cancer is a significant cause of cancer morbidity and mortality in North American men. Tumor grade and stage are well-accepted prognostic factors. Histologic demonstration of tumor in vascular spaces has been associated with poor prognosis in many tumor types. Whether vascular invasion represents an independent prognostic factor for disease progression is uncertain in prostate cancer.

Design: 504 cases of prostatic adenocarcinoma from patients undergoing radical prostatectomy were reviewed for the presence of vascular invasion. Clinical followup data was available for 459 cases.

Results: Vascular invasion was identified in 106 (21%) of the cases. Univariate analysis showed a significant association between vascular invasion and PSA recurrence, tumor stage, Gleason grade, extraprostatic extension, seminal vesicle invasion, lymph node metastasis, surgical margins, perineural invasion, and preoperative serum PSA level (all $p \leq 0.001$). No association was observed between vascular invasion and age at surgery, prostate weight, or the presence of high grade prostatic intraepithelial neoplasia. Vascular invasion is an independent predictor of PSA recurrence after controlling for tumor stage and Gleason grade in the multivariate analysis.

Conclusions: Vascular invasion can be seen in approximately 20% of prostate cancers. Vascular invasion is an independent risk factor for PSA recurrence.

Editorial Comment

This paper emphasizes the importance of vascular invasion in radical prostatectomies. Most of the pathologists do not report this finding because it does not alter staging of the tumor. The same occurs in kidney and urinary bladder tumors except in testicular neoplasias. Since the 1997 edition of the TNM system for classification of malignant tumors, testicular neoplasms limited to the testis but with vascular invasion are classified as pT2 tumors.

The study from the Indiana University showed that vascular invasion seen in approximately 20% of prostate cancers is an independent predictor of PSA recurrence after controlling for tumor stage and Gleason