ABSTRACT FROM CURRENT LITERATURE

Failing to achieve a nadir prostate-specific antigen after combined androgen blockade: Predictive factors

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Objectives: To determine the optimal cut-off of a nadir prostate-specific antigen (PSA) for prediction of progression within 24 months after combined androgen blockade (CAB) and to analyze predictive factors of failing to achieve the nadir PSA.

Methods: We retrospectively reviewed the medical records of 343 patients with prostate cancer treated with CAB from 2000 to 2005. We determined the nadir PSA level that predicts progression to hormone refractory prostate cancer (HRPC) at 24 months after CAB. Predictive

factors for failing to achieve a determined nadir PSA were analyzed.

Results: Mean age was 74.0 years. Mean follow up was 42.1 month. Seventy-seven patients experienced progression to HRPC. A nadir PSA of 1.0 ng/mL predicts progression to HRPC at 24 months. Predictive factors for failing to achieve a nadir PSA of 1.0 ng/mL or less include pretreatment PSA, percentage positive biopsy core, Gleason score, serum hemoglobin, stage, and extent of bone metastasis in univariate analysis. Pretreatment PSA (>50 ng/mL) and serum hemoglobin (<12 g/dL) were significant factors to predict failing to achieve a nadir PSA of 1.0 ng/mL or less in logistic regression analysis.

Conclusions: A nadir PSA of 1.0 ng/mL can predict progression to HRPC after CAB. Pretreatment PSA and serum hemoglobin are significant predictors of failing to achieve a nadir PSA of 1.0 ng/mL or less.

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Evaluation of docetaxel plus estramustine in the treatment of patients with hormone-refractory prostate cancer

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Objectives: To investigate the feasibility and efficacy of docetaxel-based chemotherapy in patients with hormone-refractory prostate cancer (HRPC).

Methods: Forty-six consecutive HRPC patients treated between January 2003 and March 2008 were included in this analysis. Docetaxel was given at a dose of 35 mg/m2 twice every 3 weeks and oral estramustine concurrently for three consecutive days during weeks 1 and 2 of each cycle. During each treatment week, the dose of estramustine was 1260 mg on the first day, 980 mg on the second day and 840 mg on the third day. Patients were premedicated with 4 mg twice a day of oral dexamethasone for three consecutive days. Treatment was continued until evidence of disease progression or unacceptable toxicity. Prostate-specific antigen (PSA) levels were evaluated at least once every 4 weeks.

Results: Patients received a median of three cycles of chemotherapy. Of the evaluable 46 patients, 25 (54%) had a _50% PSA decline and 12 (26%) had a _75% PSA decline. Median time to PSA progression and overall survival time were 10.1 and 27.0 months, respectively. Median follow-upwas 15.0 months. Major severe toxicitieswere grade 3 or 4 leukopenia in five (11%) patients. Mild toxicities included grade 1 or 2 nausea in eight (17%) patients. Two patients could not continue the treatment because of interstitial pneumonitis and a gastric hemorrhage, respectively.

Conclusions: Docetaxel plus estramustine chemotherapy represents an active and well tolerated treatment for Japanese HRPC patients.

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Safety of transperineal 14-core systematic prostate biopsy in diabetic men

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Objectives: To examine whether the transrectal ultrasound-guided transperineal 14-core prostate biopsy can be carried out safely in diabetic men and to determine adequate antimicrobial prophylaxis protocol in this setting.

Methods: The present study included 539 men, 135 with concurrent diabetes mellitus (DM) and 404 without DM, who underwent transperineal extended 14-core biopsy due to elevated prostate-specific antigen_2.5 ng/mL and/or abnormal digital rectal examination. Any complication requiring prolonged hospitalization or rehospitalization during the 4-week post-biopsy period was considered major. All other complications were considered minor. Intensity of antimicrobial prophylaxis was prospectively reduced in a stepwise manner down to single dose of oral levofloxacin.

Results: Except for DM, there was no significant difference in clinical background between the diabetic and non-diabetic men. The procedure was completed in all revealing prostate cancer in 42% of the diabetic men and 36% of the non-diabetic men ($P = 0.23$). Incidence of minor or major complications was not significantly different between the two groups. Minor complications were observed in 15.6% and 16.6% of each group, respectively, with voiding disturbance being the most common. No infectious major complication was observed regardless of the presence of DM. In the diabetic men, there was no statistical difference in incidence of biopsy-related complications according to modality of DM treatment, HbA1c level or antimicrobial prophylaxis protocol.

Conclusions: Transperineal 14-core biopsy can be carried out without major infectious complications in diabetic men. Oral levofloxacin 300 mg once before the procedure seems to represent an effective antimicrobial prophylaxis in diabetic men without other risk of infection.

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Nephrectomy improves survival in patients with invasion of adjacent viscera and absence of nodal metastases (stage T4N0 renal cell carcinoma)

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Objective: To examine the cancer-specific mortality (CSM) of patients with T4N0–2M0 renal cell carcinoma (RCC) treated with either nephrectomy (RN) or no surgery (NS).

Patients and Methods: Of 43 143 patients with RCC identified in the Surveillance, Epidemiology and End Results database, 310 had tumours involving adjacent organs with no evidence of distant metastases (T4NanyM0) and had RN (246,79.4%) or NS (64, 20.6%). Kaplan-Meier analyses, Cox regression and competing risks regression models were used to compare the effect of RN vs NS on CSS.

Results: In patients with T4N0 disease the median survival benefit associated with RN vs NS was 42 months (48 vs 6 months, $P<0.001$). Conversely, the median survival in patients T4N1-2 was no different between RN and NS (9.3 vs 9.1 months, $P=0.9$). Multivariable analyses in T4N0 cases indicated a substantial survival disadvantage for patients having NS vs RN (hazard ratio 4.8, $P<0.001$). Conversely, in patients with N1-2 stages, the CSS was virtually the same for NS and RN (hazard ratio 0.9, $P=0.9$). Competing-risks regression models confirmed the benefit of RC in patients with T4N0 and the lack of benefit in those with T4N1-2 disease, after controlling for other cause mortality.

Conclusion: Our data suggest a survival benefit in patients with T4N0 RCC treated with RC. By contrast, RN seems to have no effect on survival in patients with evidence of nodal metastases.

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Tubeless percutaneous nephrolithotomy: 3 years of experience with 454 patients

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Objective: To present our experience with 454 patients who had tubeless percutaneous nephrolithotomy (TPCNL) over last 3 years.

Patients and Methods

From September 2004 to August 2007, all patients aged >14 years and undergoing PCNL were considered for TPCNL. Exclusion criteria were the presence of pyonephrosis, matrix calculi, significant bleeding or residual stone burden and need for three of more percutaneous accesses. These patients had a nephrostomy tube placed after PCNL (control group). The remaining patients undergoing TPCNL (study group) had antegrade ureteric stenting. Demographic and perioperative data were compared retrospectively.

Results: Of 840 patients who had PCNL during the study period, 454 had TPCNL. The two groups had comparable demographic data except for a smaller stone burden (322.8 vs 832.2 mm2) and fewer staghorn calculi (94vs 154) in patients undergoing TPCNL (*P*<0.001). The mean number of tracts per renal unit and operative duration were statistically higher in patients undergoing standard PCNL (1.5 vs 1.1, and 68.8 vs 52.2 min, respectively). The decrease in haemoglobin, complication and stone-free rates were comparable. TPCNL was associated with less postoperative pain, analgesia requirement and earlier discharge (*P*<0.001).

Conclusions: TPCNL can be used with a favourable outcome and no increase in complications in selected patients, with the potential advantages of decreased postoperative pain, analgesia requirement and hospital stay. Its application can be extended to patients with a solitary kidney, previous ipsilateral open surgery, raised serum creatinine level, in the presence of three renal accesses or supracostal access, and in patients undergoing bilateral synchronous PCNL or contralateral endourological stone treatment.

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Should being aged over 70 years hinder penile prosthesis implantation?

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Objective: To assess the satisfaction profiles following penile prosthesis surgery in patients with erectile dysfunction (ED) in their seventh decade of life.

Patients and Methods: In all, 174 patients received, for the first time, a penile prosthesis between 1990 and 2007 in our department. Among these, 35 patients were aged e”70 years at prosthesis implantation. Of these, 18 patients were still alive at the time of follow-up. Using a telephone survey, patients were asked to answer the Erectile Dysfunction Inventory of Treatment Satisfaction (EDITS) as well as the International Index of Erectile Dysfunction (IIEF). Another question in the survey was developed by the authors based on a comprehensive review of the literature, which assessed the usefulness of the device for the patient and the degree of their usage. This was formulated as follows: How many times per 2 weeks do you have a sexual intercourse?

Results: In all, 15 of 18 patients were either very or somewhat satisfied (83%). At follow-up 11 out of 15 (73%) patients were using their prosthesis regularly. The mean IIEF and EDITS scores were 21.80 and 75.20, respectively.

Conclusion: A penile prosthesis remains a highly promising treatment in older patients with a similar satisfaction rate to those published for younger patients. Thus, the motivation of the patient and not the age of the patient should be the main determinant factor in this surgical procedure.

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The 7-year outcome of the tension-free vaginal tape procedure for treating female stress urinary incontinence

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Objective: To evaluate the long-term results and predictive risk factors for efficacy after the tension-free

vaginal tape (TVT) procedure for treating female stress urinary incontinence (SUI).

Patients and Methods: Inall, 306 women (mean age 50.7 years, SD 8.7) who had a TVT procedure for SUI were selected and followed e”7 years (mean 92.3 months, range 84–110) after surgery. We analysed the long-term results, the variables predictive of cure rates, and patient satisfaction.

Results: The overall 7-year cure rate was 84.6%, with a satisfaction rate of 69.3%. The cure rates were lower in patients with high-grade SUI (50% in grade III, 82.8% in grade II and 90.7% in grade I;*P* <0.001). On multivariate analysis, there were no independent risk factors related to cure rate, and urgency was the only factor independently associated with patient satisfaction (*P*=0.008; odds ratio 2.47). Seventy-one patients (23.2%) had complications at the 1-month follow-up after surgery, but only eight (2.6%) had complications at the 7-year follow-up, including mesh exposure in six and de novo urgency in two.

Conclusion: The absence of long-term adverse events associated with the TVT procedure, and high subjective and objective 7-year success rates with no independent predictive factors affecting the long-term cure rate, make the TVT procedure a recommendable surgical treatment for female SUI.

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Sexual function among women with stress incontinence after using transobturator vaginal tape, and its correlation with patient’s expectations

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Objective: To evaluate changes in female sexual function after a transobturator vaginal tape (TOT) procedure for treating genuine stress urinary incontinence (SUI), and its correlation with patient’s expectation.

Patients and Methods: The study included women treated with a suburethral TOT for genuine SUI, neurologically intact, heterosexual and married, aged >18 years, with no previous history of malignancy, pelvic radiotherapyand no other associated surgical or psychological diseases. Patients were interviewed before surgery and with the aid of a questionnaire including female sexual function, the Beck depression indices and their expectation of sexual function after surgery.

Results: Sixty-two premenopausal sexually active women were included (mean age 40.5 years). The cure rate from SUI was 92%, 89%, 87% and 84% at 6, 12, 18 and 24 months, respectively. All patients attended the visit before and the first visit after surgery, while 71%, 42% and 24% were assessed at the 12-, 18 and 24-month visits, respectively. The mean follow-up was 12 months. Fiftytwo women resumed their sexual activity early within the 8 weeks after surgery and the frequency of coitus in more than twothirds of patients was at least once per month. The number of women who expected either looseness or tightness of the vagina was more than that estimated from patient perceptions. There was a difference between the patient’s sensation of vaginal length abnormalities during coitus (two women) and patient expectation (18 women).

Conclusion: Although the TOT is effective for treating SUI, counselling the patient and her partner is important in correcting false ideas and expectations about future sexual activity. Indeed, sexual dysfunction is reported after vaginal surgery, with a physiological and psychological background. Further assessment should be used to characterize sexual dysfunction after vaginal surgery for SUI to find new solutions.

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Technical description and outcomes of a continuous anastomosis in open radical prostatectomy

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Objective: To describe the surgical technique, objective and subjective medium-term outcomes of a novel continuous vesico-urethral anastomotic suture in open radical prostatectomy (ORP).

Patients and Methods: A continuous anastomosis comprising separate anterior and posterior monofilament 3–0 polydioxanone sutures, with the bladder neck ‘parachuted’ down on to the urethral stump, was used in 39 consecutive patients. A cystogram was taken after

ORP in the first 23 patients. The catheter was removed as soon as patients were fully mobile. A validated postal questionnaire to determine continence and its effect on quality of life was sent to all patients e”3 months after ORP.

Results: The mean follow-up was 18 months; there were no major complications. There was aninsignificant or no leak in 91% of the patients who had a cystogram. Before discharge, 33 patients reported that they were continent, whilst five required a pad(s) for stress incontinence, and one was discharged with a catheter after failing the first catheter removal. Of the 95% who completed the questionnaire, 95% either did not leak urine, or only leaked a small amount; 84% of patients reported that leaking had a minimal effect on everyday life. No patients developed symptomatic urethral or bladder neck stricture/ contracture.

Conclusions: Our technique of continuous anastomotic suturing for ORP is safe, reliable and well tolerated. Further randomized studies are warranted to compare the outcome with the standard interrupted vesico-urethral anastomosis.

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Bladder neck contracture after radical retropubic prostatectomy using an intussuscepted vesico-urethral anastomosis: incidence with long-term follow-up

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Objective: To evaluate the incidence of bladder neck contracture (BNC), a known complication of radical retropubic prostatectomy (RRP), after a 9-year experience by one surgeon using a novel approach to lower urinary tract reconstruction, the intussuscepted vesicourethral anastomosis (IVUA).

Patients and Methods: After institutional review board approval, the charts of 406 patients who had RRP for clinically localized prostate cancer from March 1998 to July 2007 were reviewed retrospectively. All patients had lower urinary tract reconstruction using the IVUA technique, which involves a looped urethral suture using six double-armed sutures that are drawn ‘inside-to-out’ from staggered points on the urethral stump through the bladder neck opening. When the sutures are tied down, the urethra is intussuscepted into the bladder neck opening.

Results: At a median follow-up of 48 months, three patients developed BNC: one was at increased risk secondary to a previous TURP; one had his catheter removed on the second day after RRP in the presence of a suprapubic tube and developed a BNC at his ‘dry’ anastomosis; and one with no risk factors developed a BNC. Balloon dilatation, laser incision and self obturation were successful in stabilizing the strictures while preserving continence. Overall, the incidence of BNC in this series was three of 406 (0.74%).

Conclusions: IVUA gives a lower incidence of BNC over a long-term follow-up than rates cited in previous reports. IVUA is a valuable technique for lower urinary tract reconstruction in patients undergoing RRP.

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