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UROLOGICAL ONCOLOGY

Renal cell carcinoma in adults 40 years old or less: young age is an independent prognostic factor for cancer-specific survival

Taccoen X, Valeri A, Descotes JL, Morin V, Stindel E, Doucet L, Joulin V, Bocqueraz F, Coulange C, Rambeaud JJ, Fournier G, Mejean A; Oncology Committee of the Association Française d'Urologie Service d'Urologie, Centre Hospitalier et Universitaire, 29609 Brest Cedex, France Eur Urol. 2007; 51: 980-7

Objectives: Renal cell carcinoma (RCC) is uncommon in young adults. Based on the few studies published to date, it is difficult to determine whether this tumour has a particular progression pattern. This retrospective, multicentre study analysed RCC in young patients, defined as </= 40 yr old, compared to RCC in older patients.

Methods: Between 1988 and 2000, 1233 patients, 93 under 40 yr old and 1140 older (mean ages, 34.2 and 61.9 years, respectively) underwent surgery for RCC in four teaching hospitals. Clinical and biologic parameters at diagnosis were compared and subjected to univariate and multivariate analyses to study survival. Mean follow-up was 4.5 yr for young and 4.1 yr for older patients.

Results: When comparing younger to older patients, respectively, they had a lower male-to-female ratio (1.2 vs. 2.5), lower stage (84.9% vs. 67.4% pT1-pT2N0M0; p = 0.001), and fewer clear-cell carcinomas (73.1% vs. 82%), but more papillary carcinomas (20.4% vs. 11.4%; p = 0.01) and better 5-yr cancer-specific survival rates (90.8% vs. 78.3%; p = 0.005). Independent prognostic factors for survival, in the order of decreasing impact, were tumor stage (p < 0.0001), Fuhrman nuclear grade (p < 0.0001), and age </= 40 yr at diagnosis (risk ratio 0.4, p < 0.047). Young patients tended to have a better 5-yr progression-free survival (80.5% vs. 70.7%; p = 0.05). Conclusions: RCC in young adults was more often localised at diagnosis and had a better prognosis than the disease in older subjects. Age under 40 yr old was an independent prognostic factor for survival.

Editorial Comment

This report focuses on a large database of roughly 1300 patients with renal cell carcinoma from several hospitals in France. 10% of these patients were less than 40 years old and were analyzed in comparison to the older ones. Interestingly, young patients had a better 5 year progression-free prognosis.

One of the factors that differed between these groups was that younger patients had more symptomatic tumors (60,2% vs. 50,4%), which, however, was not due to a different tumor size (5.8 cm vs. 6 cm). Aggressive growth showed differences, as favourable pT1 and pT2 tumors were more often among younger patients

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(84.9% vs. 67.4%). The differences between the age groups is interesting and, to my opinion, might be due to a shift in immunologic control with age. This should be focused in further scientific approaches on renal cell cancer.

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Should we replace the Gleason score with the amount of high-grade prostate cancer?

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Objectives: The stage and grade shift of currently diagnosed prostate cancer has led to a diminished prognostic power of the Gleason score system. We investigated the predictive value of the amount of high-grade cancer (Gleason growth patterns 4/5) in the biopsy for prostate-specific antigen (PSA) and clinical relapse after radical prostatectomy.

Methods: PSA-tested participants (N = 281) of the European Randomized Study of Screening for Prostate Cancer (ERSPC) who underwent radical prostatectomy were analyzed. Besides clinical features, and serum-PSA, histopathologic features as determined in the diagnostic biopsy and matching radical prostatectomy specimen were related to patient outcome.

Results: At a median follow-up of 7 yr, 39 (13.9%), 24 (8.5%), and 12 (4.3%) patients had PSA >/= 0.1 ng/ml, PSA >/= 1.0 ng/ml, and clinical relapse after radical prostatectomy, respectively. Using Cox proportional hazards, PSA level (p = 0.002), length of tumour (p = 0.040), and length of high-grade cancer (p = 0.006) in the biopsy, but not Gleason score, were independent prognostic factors for biochemical relapse (PSA >/= 0.1 ng/ml) when assessed as continuous variables. In radical prostatectomies, the proportion of high-grade cancer (p < 0.001) was most predictive of relapse (PSA >/= 0.1 ng/ml). For PSA >/= 1.0 ng/ml and clinical relapse, the amount of high-grade cancer, both in the biopsy specimen (p = 0.016 and p = 0.004, respectively) and radical prostatectomy specimen (p = 0.002 and p = 0.005, respectively), but not Gleason score, was an independent predictor.

Conclusions: In biopsy and radical prostatectomy specimens of surgically treated prostate cancer, the amount of high-grade cancer is superior to the Gleason grading system in predicting patient outcome. We propose that, in addition to the Gleason score, the amount of Gleason growth patterns 4/5 in the biopsy (whether absolute length or proportion) should be mentioned in the pathology report.

Editorial Comment

Gleason sum score is widely used for tayloring treatment to patients with prostate carcinoma. In this report, the authors compare the usual Gleason sum score to the amount of Gleason 4/5 (aggressive growth pattern) in the biopsy in predicting outcome after radical prostatectomy. They found that the proportion of aggressive tumor correlates very well with PSA relapse after radical prostatectomy and suggest to indicate this proportion in the pathological report.

Indeed, from these data and other reports this approach can only be emphasized and every pathologist should be asked for this additional service. The only caveat may be the difficulty to define the proportion of

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aggressive tumor growth (Gleason 4/5) in biopsies with small amount of tumors. Still, this approach may be very helpful in clinical practice.

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NEUROUROLOGY & FEMALE UROLOGY

Development of de novo urge incontinence in women post sling: The role of preoperative urodynamics in assessing the risk

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Neurourol Urodyn. 2008; 27: 407-11

Aims: The study was undertaken to investigate if there are specific identifiable risk factors on the preoperative history or urodynamics testing associated with an increased risk for the development of symptoms of de novo urge urinary incontinence after a minimally invasive sling procedure.

Methods: Two hundred eighty-one women who had undergone minimally invasive sling surgery for stress urinary incontinence between January 2000 and December 2003 were identified. The records of 92 patients were included in this review.

Results: Twenty-five patients (27%) reported urge urinary incontinence on postoperative questioning. Clinical and urodynamic parameters were correlated with the development of de novo urge urinary incontinence. Preoperative history parameters were not predictive of the increased risk of de novo urge urinary incontinence, with the exception of increased preoperative daytime frequency (OR 3.3 (1.2, 9.1)). Of 16 women whose detrusor pressure during the filling phase of cystometry exceeded 15 cm H2O, de novo urge urinary incontinence developed in 9 (56%) vs. 16 (21%) of 76 women, whose detrusor pressure was </= 15 cm H2O (OR 4.6 (1.4, 15.0)).

Conclusions: Directed patient history is only minimally helpful in the identification of women at increased risk for the development of de novo urge urinary incontinence, with the exception of the complaint of increased daytime frequency. Women with elevated detrusor pressure during the filling phase of cystometry were more likely to develop urge urinary incontinence postoperatively. Therefore, we suggest that preoperative urodynamic evaluation, and specifically detrusor pressure > 15 cm H2O may help identify patients at increased risk of developing de novo urge urinary incontinence following the minimally invasive sling procedure. Neurourol. Urodynam. 27:407-411, 2008. (c) 2007 Wiley-Liss, Inc.

Editorial Comment

The authors reviewed a population of women who had undergone a midurethral sling. Out of this population, 92 women were identified as having had no complaints and/or urodynamic evidence of urge urinary incontinence or detrusor overactivity before their operation. Of those 92 women, 25 (27%) developed de novo postoperative urge urinary incontinence after their surgery. The authors found that of all the preoperative variables examined, only a history of daytime urinary frequency or a bladder filling pressure of > 15 cm of