(14) or oral and inhaled steroids (4) were administered. Patients treated with oral steroids had a lower percent of lymphocytes than patients treated with inhaled steroids and 15 age matched patients with high risk superficial bladder cancer and no steroid treatment (12.3% vs 17.5% and 18.6%, respectively). The overall bacillus Calmette-Guerin response rate at 6 months was 58%. Ten of the 24 patients had disease recurrence and 3 had disease progression at a median followup of 63.5 months (IQR 19.5, 89). One patient treated with oral steroids had self-limited febrile disease and worsening of myalgia 48 hours after his third bacillus Calmette-Guerin cycle. No other systemic adverse event following bacillus Calmette-Guerin therapy was recorded and all patients completed scheduled treatments.
Conclusions: Intravesical bacillus Calmette-Guerin is a viable therapeutic option in patients with high risk superficial bladder cancer and concomitant lymphoma or chronic lymphocytic leukemia, treatment with low dose oral steroids or treatment with inhaled steroids. The bacillus Calmette-Guerin response rate at 6 months and the side effects profile associated with bacillus Calmette-Guerin therapy in these patients were comparable to those in patients with no evidence of immunosuppression. Further studies are warranted to assess the safety and efficacy of bacillus Calmette-Guerin instillations in critically immunocompromised patients.

Editorial Comment
Intravesical BCG is the most effective immunotherapy to date. An effective immune system is deemed necessary on one hand to transfer the local immune response against live mycobacteria into efficacy against urothelial cancer and on the other hand to restrict the more or less inevitable mycobacterial colonization of the bladder and even systemic bacteremia. So what happens if the immune system is compromized?

This paper gives an important answer to this question. According to their data, no complications occurred in immunocompromized patients and even more important, no major side effects were seen.

This experience is supported by own and others personal experience in such patients. Still, from own published experiments in mice a more effective immune ablation by steriods might results in complete ineffectiveness of BCG and the risk of systemic spread, so the good results reported here might just reflect relative low immunosuppressive dose of corticosteroids.

In conclusion after careful risk and benefit evaluation BCG might be given in individual immunocompromized cases.

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NEUROUROLOGY & FEMALE UROLOGY

The Effect of Terazosin on Functional Bladder Outlet Obstruction in Women: A Pilot Study

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Purpose: We assessed the effect of terazosin (Hytrin®) on functional bladder outlet obstruction in women.
Materials and methods: Functional bladder outlet obstruction was defined as a maximum flow rate of less than 12 ml per second combined with a detrusor pressure at maximum flow rate of more than 20 cm H2O in pressure

flow studies in the absence of neurological disorders or mechanical causes. In a prospective pilot study 15 women with functional bladder outlet obstruction were treated with terazosin. Terazosin was initiated at 1 mg daily and gradually increased to the maintenance dose of 5 mg daily during 2 weeks. Symptoms and urodynamic parameters were assessed before and 3 to 4 weeks after the initiation of alpha-blocker therapy.
Results: While on terazosin, voiding symptoms subjectively improved greater than 50% in 10 of the 15 women ($p = 0.002$). Median maximum urethral closure pressure at rest decreased significantly from 98 to 70 cm H2O ($p = 0.001$), median maximum detrusor pressure decreased from 45 to 35 cm H2O ($p = 0.008$), median detrusor pressure at maximum flow decreased from 34 to 27 ml per second and median post-void residual urine decreased from 120 to 40 ml ($p = 0.006$ and 0.002, respectively). There was a significant increase in the median maximum flow rate from 9 to 20 ml per second and in median voided volume from 300 to 340 ml ($p = 0.0005$ and 0.021, respectively). Storage symptoms, functional urethral length and maximum cystometric capacity did not change significantly with alpha-blocker therapy ($p > 0.05$). Overall terazosin resulted in a significant improvement in symptoms and urodynamic parameters in 10 of the 15 women (67%).
Conclusions: Terazosin had a significant symptomatic and urodynamic effect in two-thirds of our patients. These results suggest that terazosin may be an effective treatment option in women with voiding dysfunction due to functional bladder outlet obstruction.

Editorial Comment

The authors review the efficacy of terazosin on functional bladder outlet obstruction in women. In this prospective study 15 women diagnosed with functional bladder outlet obstruction (as opposed to mechanical outlet obstruction) were treated with terazosin beginning at a dose of 1 mg with gradual increase to a maximum dose of 5 mg over a two week period. Patient's symptoms and urodynamic studies were assessed at the onset of the study and approximately one month after the initiation of the terazosin therapy. The authors found that two-thirds of the women had improvement in their voiding symptoms as well as an improvement in the urodynamic studies examined. Simply stated, the investigators found that terazosin had both a subjective and objective improvement in two-thirds of the study patients.

With this paper, the authors delve into the complex world of non-neurogenic female voiding dysfunction. The difficulty of diagnosis and the relative lack of understanding of this malady has been discussed in the literature (1). That only two-thirds of the patients experienced symptomatic improvement may be secondary to the potential cause of voiding dysfunction being secondary to the failure of relaxation of the striated urethral sphincter(2) The discussion section of this paper is excellent and provides a great deal of information upon which many may expand their understanding of functional bladder outlet obstruction in women.

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Prevalence and Occurrence of Stress Urinary Incontinence in Elite Women Athletes

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Objective: 1) To assess the prevalence of stress urinary incontinence (SUI) and urge urinary incontinence (UTI) in elite women athletes versus the general female population, and 2) to analyze the conditions of occurrence of urine loss in search of etiological clues in elite athletes.
Decision: An anonymous self-questionnaire was collected transversally from women aged 18 to 35 years. The exposed group was composed of elite female athletes; the non-exposed group was made up of women in the same age range accepting to answer the questionnaire.
Results: A total of 157 answers from elite athletes and 426 from control subjects were available for analysis. Urinary incontinence prevalence was 28% for athletes and 9.8% for control subjects ($p = .001$). There was no significant difference in the relative prevalence of SUI between the athletes and control subjects. Athletes reported urine loss more frequently during the second part of the training session ($p < 0.0003$), and the second part of competition ($p < 0.05$). Urinary incontinence prevalence was 9.87% in physically-active control subjects versus 9.84% in sedentary control subjects (NS). Even a small quantity of urine loss was felt to be embarrassing. Most incontinent women did not dare to speak of their condition to anybody.
Conclusions: There is a very high prevalence of urinary incontinence in women athletes. Detailed studies of the patho-physiology of this problem are necessary to formulate preventive recommendations.

Editorial Comment

As stated by the authors, this was an epidemiologic study of the presence of urinary incontinence in female athletes and a controls. The two groups were not age matched but fairly close. The authors found a statistically significant difference between athletes and physically active women with regards to the prevalence of urinary incontinence. Parity was not found to be a risk factor in the elite athlete study group. Of note, though both groups complained of incontinence, < 5% of either group wore any incontinence protection such as pads or shields. It seemed, as noted in the figures of the paper, that swimmers had one of the highest rates of urinary incontinence thus giving support to those who value highly chlorinated swimming pools. In addition, there are few among the readership who would challenge the athletes participating in the fight category to their claim of 0% of urinary incontinence. It would have been of interest for the authors to have included the incontinence rates in the subgroup of elite athletes participating in gymnastics and weightlifting: the internet has provided ample pictures of ill-timed episodes of urinary loss during weightlifting competitions. It was interesting to see that when looking at the group of women who participated in physical exercise but were not classified as nationally competitive athletes, that physical activity did not seem to be a risk factor for incontinence. It will be of keen interest to examine the rate of response to pelvic floor exercise and therapy in the group of elite level national athletes; will this highly disciplined and physically trained group have a higher success rate than the general population of patients which are seen in our usual practice.

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