

values 24 h after the second injection of hCG (when the response was most pronounced). Those with a normal Ad/T had a mean (sd) testosterone level of 199.5 (97.6) ng/dL vs 99.6 (85) ng/dL in those with an inadequate Ad/T response to hormonal therapy ($P < 0.003$).

Conclusion: We have confirmed that there are two subgroups of cryptorchid boys. Patients with a sufficient Leydig cell secretory capacity will have normal testicular histology and Ad spermatogonia count after hormonal treatment. While those with a suboptimal Leydig cell capacity will have a low Ad spermatogonia count and consequently poor prognosis for future fertility, despite successful surgery. As to whether different types and durations of the hormonal therapy in patients with impaired Leydig cell response could lead to improved testicular histology and consequently improved prognosis for future fertility, remains to be answered.

Editorial Comment

This paper presents new important insights on the understanding of cryptorchidism and its treatment and I will highlight some important points.

The authors demonstrated for the first time, that the transformation of gonocytes into Ad spermatogonia is a testosterone-dependent process. If an adequate increase in plasma testosterone follows hormonal stimulation, normal germ-cell maturation occurs. Patients that have an insufficient Leydig cell response to hormonal stimulation, resulting in an inadequate testosterone increase, will have poor testicular histology and a low Ad spermatogonia count.

Interesting, the authors concluded that appears to be two subgroups of cryptorchid boys; those with a sufficient Leydig cell secretory capacity and those with a suboptimal Leydig cell secretory capacity.

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RECONSTRUCTIVE UROLOGY

Resurfacing and reconstruction of the glans penis

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Eur Urol. 2007; 52: 893-8

Objectives: To describe the techniques and results of surgical reconstruction of glans penis lesions.

Methods: Seventeen patients (mean age: 53.2 yr) were treated by resurfacing or reconstruction of the glans penis for benign, premalignant and malignant penile lesions. The aetiology of the lesions was one Zoon's balanitis, four lichen sclerosus, one carcinoma in situ, five squamous cell carcinomas, and six squamous cell carcinomas associated with lichen sclerosus. Five cases were treated by glans skinning and resurfacing; five cases by glans amputation and reconstruction of the neoglans, and seven cases by partial penile amputation and reconstruction of the neoglans. Glans resurfacing and reconstruction were performed with the use of a skin graft harvested from the thigh.

Results: The mean follow-up was 32 mo. All patients were free of local premalignant/malignant recurrence. Patients who underwent glans resurfacing reported glandular sensory restoration and complete sexual ability. Patients who underwent glanssectomy or partial penectomy with neoglans reconstruction maintained sexual function and activity, although sensitivity was reduced as a consequence of glans/penile amputation.

Conclusions: In selected cases of benign, premalignant or malignant penile lesions, glans resurfacing or reconstruction can ensure a normal appearing and functional penis, without jeopardizing cancer control.

Distal urethral reconstruction of the glans for penile carcinoma: results of a novel technique at 1-year of followup

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Purpose: No satisfactory techniques are available to replace the anatomy and function of the penile glans after radical surgery for penile carcinoma. We report a new technique of glans reconstruction using distal urethra. We evaluated anatomical, physiological and esthetic features as well as short-term and long-term clinical outcomes. **Materials and Methods:** A total of 14 patients with a mean age of 54 who had squamous penile carcinoma underwent glans reconstruction after simple glansectomy in 8 and after amputation of the distal third of the shaft in 6. Glans sensibility, erectile function, ejaculation, orgasm, penile length, local recurrence, patient and partner satisfaction, and quality of life were evaluated before and after the operation. Mean followup was 13 months. **Results:** All patients noticed subjective and objective thermal and tactile epicritic sensibility in the area of the neoglans. Ten of 14 patients (71%) noticed spontaneous and/or induced rigid erections. Interestingly International Index of Erectile Function scores in the ejaculation and orgasm domains did not significantly change in the period before and after surgery. No local disease recurrence or penile retraction were reported at long-term followup.

Conclusions: Reconstructive glanuloplasty with distal urethra in penile tumor surgery is an innovative, easy and rapid surgical technique with appreciable functional and esthetic results.

Editorial Comment

Reasons for penile reconstruction may not only be neoplasia, but also trauma, inflammatory disease and congenital malformation. In many cases, careless even unnecessary amputations eliminate the possibility for a satisfactory glans reconstruction. Because penile anatomic reconstruction is often possible, the EAU has established treatment guidelines on penile cancer (1) which favor the use of conservative penile sparing techniques for the tumor entities of Ta-T1, G1-3 and select cases of T2 tumors.

Palminteri et al. and Gulino et al. published their techniques, which appear to help in the reconstruction of the penile glans with a good cosmetic outcome (2,3). Palminteri et al. used a free split-thickness skin graft of the thigh. Gulino et al. investigated their functional outcome even further after using the distal urethra in the reconstructive approach. With a physical examination, the IIEF (erection, ejaculation, orgasm and libido domain score) and the Bigelow & Young scores, they evaluated an overall satisfying outcome with a minor additional surgical effort (mean 35 min). The advantage of using the distal urethra is the untroubled blood supply (including certain rigidity under erection) and the sensibility.

Both techniques can be performed for a distal penile reconstruction involving amputation up to one third of the penile length. In case of penile cancer, both oncological radicality and satisfactory body image can be achieved. It complies with compliance of EAU penile cancer guidelines and maximizes patients' quality of life without compromising tumor survival.

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Nerve-sparing radical cystectomy and orthotopic bladder replacement in female patients

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Objectives: Orthotopic diversion, initially performed solely in men, has now become a viable option in women. Approximately 15 yr ago, at several centres, urethra-sparing cystectomy and orthotopic diversion were initiated in women with bladder cancer. Several studies have since addressed both the oncologic and functional outcomes of this procedure.

Methods: We describe our surgical technique of cystectomy and orthotopic urinary diversion in female patients, with an emphasis on how we preserve the neurovascular bundle.

Results and Conclusions: An improved understanding of the anatomic neurovascular and fascial planes related to the rhabdosphincter has facilitated identification of elements needed for orthotopic diversion in female patients. The technique of en bloc anterior exenteration includes the anterior portion of the vagina; however, preservation of the rhabdosphincter and its autonomic nerve supply necessitates specific modifications of the standard operation. The video provides a detailed description of our surgical technique with attention to anatomic details necessary to avoid damage to the proximal urethra and to preserve the autonomic innervation of the rhabdosphincter.

Autonomic nerve preservation reconfirmed

Editorial Comment

This is another detailed description and rationale for an orthotopic bladder substitution in female patients undergoing radical cystectomy. There is a plethora of literature now about the use of urinary continence diversion to the urethra in female patients. Whereas almost all contributions agree that such a diversion can and should be authored to female patients there is still no agreement whether better functional results can be achieved with a preservation of autonomic nerves running to the remnant isolated urethra. This contribution by well-known experts clearly favor preservation of autonomic nerves for two reasons: sexual activity, especially in younger women has been more or less neglected for many years but seems to be important (reference 16 and 17 in the manuscript), this group has formerly demonstrated that preservation of autonomic nerves also contributes to continence. It is therefore not only important to preserve autonomic nerves in the younger patients, although sexually active, but to preserve autonomic nerve in elderly patients as well, those patients that are in danger of having a borderline continence postoperatively. A better sensitivity of the remnant urethra will be better for the “first drop incontinence” due to better reaction of urine entering the urethra and resulting in reflex contraction in the pelvic floor but also will help in achieving better results with postoperative physical therapy for urinary incontinence (1).

Not everything concerning the function of autonomic nerves with regards to clitoral and vaginal function, secretion of pelvic glands, function and long-term fate of urethral smooth musculature, and interaction with rhabdosphincter and pelvic floor musculature is known to date. However, with increasing knowledge we know that it is important to preserve at least part of the ganglions and nerve fibers of pelvic autonomic nerves to increase the quality of life for these patients in the long-term. In addition, it is the long-term quality of life where functional outcome is important contrary to oncological outcome, which in the first few years seems to be dominant as quality of life studies have shown.

Reference

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UROLOGICAL ONCOLOGY

Preoperative serum testosterone level as an independent predictor of treatment failure following radical prostatectomy

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Objectives: Preoperative low serum testosterone (TS) level has been reported to be associated with adverse pathologic results in patients with clinically localized prostate cancer (pCA) treated with radical prostatectomy (RP). However, prior studies failed to show prognostic impact of preoperative low TS in these patients. The aim of this study was to investigate the relationship between preoperative TS and prostate-specific antigen (PSA) failure in these patients.

Methods: Of 304 patients diagnosed with clinically localized pCA who had been treated with RP alone, 272 patients whose preoperative TS level had been measured were eligible for this analysis. Postoperative TS levels were also available in 222 of the 272 patients. Cox proportional hazard model was used to elucidate factors predictive for PSA failure.

Results: Of the 272 patients 49 had low (< 300 ng/dl) and 223 had normal preoperative TS level. In a stepwise multivariate analysis, preoperative TS ($p = 0.021$) was an independent and significant predictor of PSA failure along with RP Gleason score ($p = 0.006$), surgical margin status ($p = 0.0001$), and PSA ($p = 0.0001$). Five-year PSA failure-free survival rate of the patients with preoperative low TS (67.8%) was significantly worse than that with normal TS (84.9%) ($p = 0.035$). Serum TS levels increased significantly after RP ($p < 0.0001$). The increment of TS level in preoperative low TS group was significantly greater than that in preoperative normal TS group ($p = 0.0003$).

Conclusions: The current results demonstrated that preoperative TS level is an independent and significant predictor of PSA failure after RP in patients with clinically localized pCA. *European Association of Urology*.