

seven verrucous carcinomas, two sarcomas, two melanomas, five carcinoma *in-situ* with only 11 (8.3%) penile metastases.

**Result** The median age at presentation was 66 years. Balanitis xerotica obliterans was found in 20.9% of cases; 29 cases (25.9%) had clinical lymphadenopathy at presentation, of which 75% were confirmed to be malignant and 25% reactive. Only 9% of patients with clinically negative lymph nodes had malignant lymphadenopathy. Two-thirds of the patients were treated with penile-preserving therapies (PPT) and a third with surgical amputation. At a mean (range) follow-up of 42.8 (1–210) months, the overall local recurrence and regional/distant progression rates were 31.4% and 21%, respectively. The local recurrence rate after PPT (40.5%) was statistically higher than after penile amputation (8.1%), whereas the regional/distant progression rates were 18.9% and 21.6%, respectively ( $P>0.05$ ). Local recurrences after PPT were, surgically or otherwise, salvageable and did not alter patient survival.

**Conclusion** Penile amputation carries immense psychosocial morbidity: most clinicians therefore favour PPT. These therapies are associated with a higher local recurrence rate, but with appropriate case-selection and close follow-up they appear to be effective, with significantly lower morbidity.

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### Organ-sparing surgery for T1N0M0 penile squamous cell carcinoma

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**Introduction** Radical treatments for T1N0M0 squamous cell carcinoma (SCC) of the penis includes total or partial penectomy and radiotherapy, all of which can lead to a considerable cosmetic, psychological and functional deformity, with resultant erectile dysfunction. The aim of this study was to assess the outcome of the conservative therapy of glans excision with split skin grafting in the treatment of early penile carcinoma.

**Patients and methods** Between 1999 and 2001, seven patients (mean age 55 years, range 43–74) underwent glans excision and penile reconstruction with a partial thickness skin graft. Preliminary biopsy of the lesions and preoperative MRI confirmed T1 disease in all patients. All patients underwent postoperative MRI and were asked about the cosmetic appearance of their penis after surgery. Six months after surgery their erectile function was assessed using the International Index of Erectile Function – 5 questionnaire.

**Results** The tumour was completely excised in all cases, with negative surgical margins. The histology of the tumour was G1 carcinoma in two patients, G2 in three, mixed G2/G3 in one and G3 in one. No local recurrences were found clinically or on MRI at a mean follow-up of 17 months. The cosmetic results were excellent in all patients and six of the seven were potent and having satisfactory sexual intercourse. The remaining patient had erectile dysfunction which was successfully treated with sildenafil.

**Conclusion** Glans excision and reconstruction with a split skin graft for T1N0M0 SCC of the penis is effective in managing the primary tumour whilst providing excellent cosmesis and maintaining erectile function.

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### The insertion of a penile prosthesis for erectile dysfunction and the management of complications: a review in 447 patients

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**Objective** To evaluate the long-term results of penile prosthesis surgery in the management of erectile dysfunction, and to further analyse the management of the complications arising from inserting penile prostheses.

**Patients and methods** In all, 447 men (mean age 52 years, range 21–78) had 504 penile prosthesis implanted between August 1975 and December 2000: 404 were primary implants and 43 secondary; 393 were malleable, 81 were three-piece inflatable and 30 were inflatable self-contained devices. The outcome was assessed from the medical records, with a mean (range) follow-up of 50 (1–297) months. In particular, the complications arising from prosthesis insertion, and the associated predisposing factors were analysed. The management and outcome of patients with complications was recorded.

**Results** Twenty-two patients were lost to follow-up and 26 (5.8%) had their prosthesis removed and not replaced. The success rate of the primary operation was 90.8%, which decreased to 80.5% for the first revision and to 62.5% for second. Eight patients developed a penoscrotal haematoma and all were managed conservatively; 25 had a superficial wound infection but none required removal of the prosthesis. Thirty-three had delayed deep infection and all required prosthesis removal. Of the prostheses which became infected, 17 (4.7%) were malleable, 10 (16.4%) were three-piece inflatable and six (24%) were self-contained. Thirteen patients went into urinary retention after surgery but all subsequently passed a trial without catheter. Sixteen developed erosion of the prosthesis, and all had their prosthesis removed and replaced. After cavernosal erosion, 11 prostheses were malleable (4.4%), four were three-piece inflatable (6.6%) and one was self-contained (4%). There was no correlation between diabetes and the rate of prosthesis infection.

**Conclusions** Most patients (84.7%) who undergo penile prosthetic surgery are extremely satisfied with the result. The surgery is associated with a low complication rate and a good long-term outcome. Diabetes does not predispose the patient to a higher risk of prosthesis-related infection. However, the type of prosthesis (self-contained or three-piece) is associated with a higher risk of infection. Penoscrotal haematoma with no evidence of infection may be managed without inserting a drain. Deep infection and cavernosal erosion should be treated by removing the prosthesis, whereas superficial infection is adequately managed with broad-spectrum antibiotics.