epidermotropic CD8+ cytotoxic T-cell lymphoma clinically simulating pyoderma gangrenosum. Clin Exp Dermatol. 2009 Apr 27.
2. Introcaso CE, Kim EJ, Gardner J et al. CD8+ epidermotropic cytotoxic T-cell lymphoma with peripheral blood and central nervous system involvement. Arch Dermatol. 2008 Aug; 144(8):1027-9.
3. Csomor J, Bognár A, Benedek S et al. Rare provisional entity: primary cutaneous aggressive epidermotropic CD8+ cytotoxic T-cell lymphoma in a young woman. J Clin Pathol. 2008 Jun; 61(6):770-2.
4. Fika Z, Karkos PD, Badran K, Williams RE. Primary cutaneous aggressive epidermotropic CD8 positive cytotoxic T-cell lymphoma of the ear. J Laryngol Otol. 2007 May; 121(5):503-5.

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A case of genital radionecrosis The forgotten complication

Epidermoid carcinoma of the penis is a rare condition, with an estimated incidence of about 1 per 100,000 males in North America and Western Europe, accounting for less than 1% of male cancers (1). As its incidence is very low, the medical literature of this penile cancer is often limited to case series.
The main aim of the treatment is organ and function preservation when feasible, without compromising survival (2). Surgery in the form of partial or total penectomy is the most effective option, but is associated with considerable psychosexual morbidity (3,4). Radiotherapy, with brachytherapy and external radiation (4), is considered as a key part of penis cancer treatment, both for the primary tumour and for lymph node involvement (5).
This latter option provides an organ-sparing alternative, preserving penile morphology and function in selected patients, which eliminates the psychological distress associated with amputation (5). Its use as exclusive management has been reported for treating primary lesions and metastatic ilio-inguinal lymph nodes (6). Radiation has shown success rates in squamous cell carcinoma of the penis stage T1 and T2 in 55-88% of cases (Table I).

Table 1: Comparative results from recent radiotherapy series

Author (n)	Nb	Type RT	Dose (Gy)	F/up (mos)	LC (5 ys)	Necrosis	Penile preservation
Crook (1)	67	BT	60	48 (4-194)	87.3%	12%	88%
Sarin (2)	59	RT	60/30	62 (2-264)	55%	3%	50%
Rozan (6)	184	BT	63	139	86%	21%	78%
Chaudhery (7)	23	BT	50	21 (4-117)	70%	No	70%
Kiltie (8)	31	BT	63.5	61.5	81%	8%	75%
Soria (9)	102	BT	61-70	111	77%	-	72%
Gotsadze (10)	155	RT	40-60	4 decades	65%	0.6%	65%
Mistry (11)	18	RT	55/16-50/20	62	63%	2	66%
Azrif (12)	41	RT	50-52.5	54	62%	8%	62%
Crook (13)	49	BT	60	33.4 (4-140)	85%	16%	86%

RT external radiotherapy, BT brachytherapy, F/up (mos) follow-up in months, LC local control.

Local failure rates range from 16 to 40% (2-6). One of its most dramatic complications is soft tissue necrosis or radionecrosis of the penis. It has been reported in 0-21% of patients (Table I) and is related to dose and type of treatment. Skin necrosis can appear 12 months after administration of even one radiotherapy session. It is more common after brachytherapy than external radiation. The risk of necrosis increases with doses over 60 Gy and for T3 or larger volume tumors (6).
Herein we present a case of early penile radionecrosis after radiotherapy for penile cancer.

Case report
A 51-year-old married man presented with an ulcerated lesion of the penis that was discovered by him 7 months ago. He reported that he was circumcised at the age of 5 years and that he had an active heterosexual sex life.
Physical examination revealed a 3 cm, ulcerated penile lesion limited to the base of the penis. It had poorly defined edges with loss of tissue (Figure 1). There was no evidence of palpable inguinal lymph nodes. His general hygiene was not that good.
The lesion was biopsied and the histopathological study concluded to a moderate grade squamous cell carcinoma. After radiological studies, it was classified as stage T2-N0-M0 according to the 2002 UICC Tumour Node Metastasis (TNM) classification for penile cancer.

Figure 1: Preoperative aspect: an ulcerated lesion in the base of the penis.

Total penectomy was indicated but entirely refused by the patient. Although, he was fully informed of the disease stage, prognosis and limited treatment options, he asked to undergo any other organ-preservation treatment. Thus, he was treated with external-beam radiotherapy. The dose used was 10 Gy and given in 3 fractions over 20 days. Regional lymph nodes were not treated prophylactically with radiotherapy.
Four days later, the patient was again admitted to the hospital for septicaemia with extensive erythema at the genital, perineum and inguinal fosses with gangrenous necrosis of the penis (Figure 2).

Figure 2: Penile necrosis after external radiotherapy.

He underwent an "emergent" total penectomy (without lymphadenectomy) (Figure 3) including fatty tissue, fascia and muscle. The patient was provided with home medical assistance for the daily changing of the wound dressings.
Although, continued antibiotics and repeated local excision of an extensive necrosis, the disease progressed tragically and the patient died 5 months later.

Figure 3: Specimen: total penectomy.

Conclusion

Sometimes, the urologist is found to have very limited therapeutic options to propose to a patient who refuses radical treatment because of its side effects.
In the present case, despite the attempts to offer the patient some therapeutic alternative to preserve his penis, it was not possible due to the extension and seriousness of the pathology. It was also difficult to exactly predict the magnitude side effects of radiotherapy.
Such patient must be under strict surveillance since radiation effect can be very serious as radionecrosis.

References

1. Crook J, Ma C, Grimard L. Radiation therapy in the management of the primary penile tumor: an update. World J Urol. 2009;27:189-96.
2. Sarin R, Norman AR, Steel GG, Horwich A. Treatment results and prognostic factors in 101 men treated for squamous carcinoma of the penis. Int J Radiat Oncol Biol Phys. 1997;38:713-22.
3. Opjordsmoen S, Fossa SD. Quality of life in patients treated for penile cancer. A follow-up study. Br J Urol. 1994; 74:652-7.
4. Guzmán-Esquivel J, Delgado-Enciso I, Solano-Moreno H. A dramatic case of genital radionecrosis. Int Urol Nephrol. 2010;42:65-8.
5. Ravi R, Chaturvedi HK, Sastry DV. Role of radiation therapy in the treatment of carcinoma of the penis. Br J Urol. 1994;74:646-51.
6. Rozan R, Albuisson E, Giraud B, et al. Interstitial brachytherapy for penile carcinoma: a multicentric survey (259 patients). Radiother Oncol. 1995;36:83-93.
7. Chaudhary AJ, Ghosh S, Bhalavat RL, Kulkarni JN, Sequeira BV. Interstitial brachytherapy in carcinoma of the penis. Strahlenther Onkol. 1999;175:17-20.
8. Kiltie AE, Elwell C, Close HJ, Ash DV. Iridium-192 implantation for node-negative carcinoma of the penis: the Cookridge Hospital experience. Clin Oncol (R Coll Radiol). 2000;12:25-31.
9. Soria JC, Fizazi K, Piron D, et al. Squamous cell carcinoma of the penis: multivariate analysis of prognostic factors and natural history in monocentric study with a conservative policy. Ann Oncol. 1997;8:1089-98.
10. Gotsadze D, Matveev B, Zak B, Mamaladze V. Is conservative organ-sparing treatment of penile carcinoma justified? Eur Urol. 2000;38:306-12.
11. Mistry T, Jones RW, Dannatt E, Prasad KK, Stockdale AD. A 10-year retrospective audit of penile cancer management in the UK. BJU Int. 2007;100:1277-81.
12. Azrif M, Logue JP, Swindell R, Cowan RA, Wylie JP, Livsey JE. External-beam radiotherapy in T1-2 N0 penile carcinoma. Clin Oncol (R Coll Radiol). 2006;18:320-5.
13. Crook JM, Jezioranski J, Grimard L, Esche B, Pond G. Penile brachytherapy: results for 49 patients. Int J Radiat Oncol Biol Phys. 2005;62:460-7.

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