Squamous cell bladder carcinoma invading a vesicocutaneous fistulous tract

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ABSTRACT

This report describes the fourth case of squamous cell bladder carcinoma with vesicocutaneous fistulous tract invasion. A 34-year-old paraplegic man had a past medical history of cystostomy, recurrent urinary infections, and bladder lithiasis, and after 11 years of management with a permanent bladder catheter he was diagnosed with squamous cell bladder carcinoma in a vesicocutaneous fistulous tract and bilateral obstructive uropathy, along with bone and lung metastases at the time of diagnosis. Three previously reported cases of similar invasions are also described herein: Stroumbakis et al. in 1993, Stokes et al. in 1995, and Schaafsma et al. in 1999.

Keywords: Bladder cancer, squamous cell carcinoma, cystostomy, medullary lesion, paraplegia, neurogenic bladder, Mexico.

RESUMEN

Este reporte describe el cuarto caso de carcinoma vesical de células escamosas, que invadía el trayecto fistuloso vesico-cutáneo. Masculino parapléjico de 34 años de edad, que 11 años después de ser manejado con sonda vesical a permanencia y con antecedentes de una cistostomía, infecciones urinarias recuentes y litiasis vesical, fue diagnosticado con un carcinoma vesical escamoso del trayecto fistuloso vesico-cutáneo y presencia de uropatía obstructiva bilateral, así como metástasis óseas y pulmonares al momento del diagnóstico. Se describen también los tres casos reportados previamente en 1993 por Stroumbakis y colaboradores, en 1995 por Stokes y colaboradores y en 1999 por Schaafsma y colaboradores.

Palabras clave: Cáncer vesical, carcinoma de células escamosas, cistostomía, lesión medular, paraplejia, vejiga neurogénica, México.
INTRODUCTION

This report describes the fourth case to be reported in the medical literature of squamous cell bladder carcinoma invading a vesicocutaneous fistulous tract. The first case was presented in 1993 by Stroumbakis et al., the second in 1995 by Stokes et al., and the third in 1999 by RJH Schaafsma.

Squamous cell bladder carcinoma is very rare, representing less than 5% of all bladder tumors. It occurs more commonly in the seventh decade of life and the principal risk factor is the presence of a chronic intravesical catheter. Patients with spinal cord injuries have a 16 to 28 times greater risk for presenting this tumor than the general population and it is diagnosed in advanced stages in the majority of patients.1

CASE PRESENTATION

A 34-year-old paraplegic man with a spinal cord injury at the L1-L2 level secondary to an automobile accident in 1999 was admitted to the hospital with severe cachexia, fever, and a hyperkeratotic exophytic tumor in the suprapubic region (Figure 1). The patient had a past medical history of intermittent hematuria, an indwelling urethral catheter, and recurrent urinary tract infections with multiple antibiotic treatments. In 2005 bladder lithiasis was diagnosed and the patient underwent cystolithotomy, with the placement of a permanent cystostomy catheter for three months. The patient later decided to use only a permanent urethral catheter. Two months prior to the appearance of the tumor, the patient reported the continuous leakage of urine from the opening at the suprapubic region.

Physical examination revealed a cachetic patient in very poor general health, with a 38.5°C temperature, an approximately 10 x 15 cm, hyperkeratotic, exophytic tumor in the suprapubic region, through which the balloon of the urethral catheter could be seen.

The laboratory work-up reported a creatinine level of 3.66 mg/dL, urea of 150 mg/dL, and albumin of 1.2 mg/dL. Urine culture was positive for multiresistant Escherichia coli. Tumor biopsy described moderately differentiated squamous cell carcinoma. A tomography scan showed a solid mass, reinforced with contrast material, that was completely taking up the bladder opening and continued to the abdominal wall, like an exophytic tumor. In addition, a stone with an approximate 4 cm diameter was identified (Figures 2 and 3). In the radiologic evaluation as extension study, the axial tomography scan of the thorax, abdomen, and pelvis showed bilateral pyelocaliceal dilatation with a slight reduction in the cortex/medulla ratio. Osteoblast lesions were also seen at the sacroiliac joint and the iliac crest (Figure 4), compatible with bone metastases. A metastatic nodule was also visible in the base of the right lung (Figure 5). The patient underwent bilateral percutaneous nephrostomy. He did not accept treatment with radiotherapy and chemotherapy and so was given palliative management. The patient died 30 days after his diagnosis.

DISCUSSION

Squamous cell carcinoma of the bladder is very rare and represents less than 5% of all bladder tumors in Western countries.1 The exact etiology has not yet been identified but there are important associated risk factors such as chronic urinary infections, bladder lithiasis, and exposure to chronic intravesical catheter. These risk factors induce chronic inflammation that initially promotes squamous metaplasia of the urothelium, which over time makes the transition to squamous cell carcinoma.2 Patients with spinal cord injuries are prone to chronic infections, bladder lithiasis, and the use of chronic intravesical catheters. Previous reports state that persons with spinal lesions have a 16 to 28 times greater risk for presenting with squamous cell carcinoma than the general population.

Squamous cell carcinoma occurs more commonly in the seventh decade of life, although prior reports state that its incidence increases in those patients that have had an intravesical catheter for more than 10 years. It has also been reported that due to the invasive nature of the tumor, the majority of patients are diagnosed in advanced stages and therefore have a very poor short-term prognosis.3-5
In a deliberate search through the medical literature, only three previous cases of squamous cell carcinoma invading a vesicocutaneous fistulous tract were found.

The first case was reported by Stroumbakis et al. in 1993 in which the patient was an 80-year-old man who presented with squamous cell carcinoma of the bladder five years after having had a cystostomy due to urethral stricture. It appeared close to the cystostomy tract, emerging toward the abdominal wall.3

The second case was described by Sam Stokes et al. in 1995 and was a 50-year-old man with a T10-T11 spinal lesion who developed squamous cell carcinoma in the cystostomy tract 25 years later. In this case the tumor extended into the bladder but did not invade the bladder muscle wall.4

The last case was reported by RJH Schaafsma et al. in 1999 and was a 67-year-old paraplegic man who developed squamous cell carcinoma after 37 years of suprapubic catheter use.5

We present the fourth case described in the medical literature of a patient with squamous cell bladder carcinoma invading a fistulous tract. As in the other published cases, our patient also presented with the main risk factors for developing this type of carcinoma which are: spinal cord injury, chronic urinary infections, and chronic intravesical catheter use, in addition to a vesicocutaneous fistulous tract through which the carcinoma emerges.

The mean age of the patients diagnosed with this disease was 65 years. Our patient was diagnosed at a much earlier age, making him the youngest patient with squamous cell bladder carcinoma emerging from a vesicocutaneous fistulous tract to be reported on in the medical literature. In addition to his young age, he was also the first patient to present with bilateral obstructive uropathy, as well as bone and lung metastases at the time of diagnosis, putting him in the advanced stage category, with a poor functional and nutritional status, and a very poor short-term prognosis. Because of these characteristics the patient was not a candidate for radical cystectomy plus urinary diversion and he opted for bilateral percutaneous nephrostomies. Previous reports have established radiotherapy as an adequate option for local disease control in those patients that are not radical cystectomy candidates, and they recommend
chemotherapy for patients with metastatic disease. Our patient was offered this therapeutic alternative but he chose to receive only palliative treatment. In his follow-up the natural aggressiveness of the disease and its bad prognosis followed their course and the patient died 30 days after his diagnosis.

CONCLUSIONS

The invasion of a vesicocutaneous fistulous tract by squamous cell carcinoma of the bladder is very rare and only three other reports have been published in the medical literature. However, it should be suspected in those patients that present with spinal cord injury, chronic urinary infections, bladder lithiasis, bladder diverticula, permanent bladder catheter use for more than 10 years, and a suprapubic mass at the site of the vesicocutaneous fistulous tract. All patients that have presented with fistulous tract invasion have had advanced stage disease with a very poor short-term prognosis, even after radical surgery.

Because squamous cell carcinoma of the bladder is very rare, there is still no established conduct or consensus as to its evaluation and adequate treatment. Therefore, strict surveillance is recommended in patients presenting with its risk factors.

REFERENCES