Recurrence of sigmoid colon carcinoma in the retained urethra after cystectomy: A case report and review of the literature

Yusuke Yagihashi, Yoshitaka Arakaki

Department of Urology, Okinawa Chubu Hospital.

DISCUSSION

Metastasis to the urethra from a primary colorectal tumor is rare. To the best of our knowledge, there have been only 12 previous cases reported in the English literature.1-10 The clinical features of these 12 cases were reviewed (Table 1). The primary colorectal tumor was located in the ascending colon in 1 case, in the sigmoid colon in 6, and in the rectum in 5. Dukes' staging of the primary colorectal cancer was known in 10 patients (A, 1 patient; B, 6 patients; C, 1 patient; D, 2 patients). The interval between the detection of the colorectal primary and detection of urethral metastasis ranged from 0 (synchronous) to 5 years. The bulbar urethra was the most commonly involved section of the male urethra. Three patients presented with acute urinary retention, 6 had lower urinary tract symptoms, and 5 had hematuria. Of the 12 patients, 5 died and 7 are alive. The most common

Table 1.

Author	Age (y)	Sex	Primary site	Dukes' Stage	Interval (year)	Site of urethra	Presentation	Treatment	Outcome (months)
Selikowitz et al 1973	48	M	Rectum	NA	5	Bulbar and meatus	AUR	Cystostomy	Dead 6
	75	M	Sigmoid	D	0.5	Bulbar and pendulous	LUTS	Cystostomy Chemotherapy Intraurethral Iridium	Dead 2
Okaneya et al 1991	47	M	Sigmoid	C	2	Bulbar	Hematuria	Resection (end-to-end anastmosis)	Alive 84
Van Thillo et al 1993	75	M	Rectum	B	2	Prostatic	AUR	Cystostomy Nd-YAG laser	Dead 6
Stragier et al 1994	68	F	Rectum	D	0	Mid -portion	LUTS, Nodule on vaginal wall	Resection RT 5FU	Alive 6
Kupfer et al 1995	67	M	Rectum	B	3	Anterior	LUTS, Palpable tumor	Cystostomy TUR Local RT	Dead 10
Yoshimura et al 1999	58	M	Sigmoid	B	2	Bulbar	Bloody discharge	Urethrectomy	Alive 12
Chitale et al 2004	60	F	Sigmoid	B	0	Meatus	Swelling at the urethral meatus	Cystourethrectomy urinary diversion	Alive 30
	72	M	Rectum	A	2	Bulbar	LUTS	Chemotherapy	Dead 24
Chang et al 2007	62	M	Ascending	B	3	Distal	Hematuria	Partial penectomy Chemotherapy	Alive 20
Noorani et al 2007	69	F	Sigmoid	NA	0	Meatus	Swelling at the urethral meatus	Chemotherapy Pelvic exenteration	Alive Unknown
Martin et al 2010	71	M	Sigmoid	B	0.16	Bulbar	Bloody discharge	Partial urethrectomy	Alive 6

No conflict of interest declared.

routes for urethral metastasis are direct infiltration, lymphatic or hematogenous dissemination, and seeding of cancer cells through urine. The most likely mechanism of spread in this case was seeding of colon cancer cells into the urethral mucosa via the urine. This report is the third case of recurrence of a non-urothelial malignant tumor in the residual urethra after cystoprostatectomy. Our case highlights that the residual urethra after cystoprostatectomy is a possible site for recurrence of nonurothelial malignancies. For urethral tumors, surgery remains the treatment modality of choice and provides excellent local control. It would be useful to determine the need for urethrectomy based on preoperative assessment. Urothelial cell cancer most frequently involves the bladder, although it may simultaneously or metachronously involve the remaining urothelium of the urethra. The choice of urethrectomy in patients with bladder cancer who are undergoing cystectomy is controversial. Current indications for prophylactic urethrectomy include carcinoma of in situ (CIS) involving the prostatic urethra, prostatic stromal invasion and positive frozen section of the apical urethra margin. Luo, et al. reported that urinary bladder invasion is an independent predictor of intravesical recurrence and distant metastasis after partial cystectomy for urinary bladder adherent colorectal cancer (11). This helps surgeons make operative planning decisions and establish follow-up protocols. Patients at risk for urethral tumors should be carefully assessed because although urethral recurrence from colorectal cancer carries a poor prognosis, an excellent long-term survival has been described in patients who receive timely urethrectomy (2). In cases of an isolated urethral lesion with no other evidence of metastatic spread, complete urethrectomy is the treatment of choice. Our patient remains tumor-free 15 months after urethrectomy. In summary, the treatment of metastatic urethral carcinoma is difficult because of the scarcity of cases and the lack of uniformity in the management of this disease. Patients with a retained urethra can be followed very carefully with urethral wash cytology, and treatment options must be tailored to the extent of the disease.