



Original article

The prognostic effect of salvage surgery and radiotherapy in patients with recurrent primary urethral carcinoma

Georgios Gakis, M.D.^{a,b,*},¹, Tina Schubert, M.D.^{a,1}, Todd M. Morgan, M.D.^c,
Siamak Daneshmand, M.D.^d, Kirk A. Keegan, M.D.^e, Johannes Mischinger, M.D.^a,
Rebecca H. Clayman, M.D.^f, Antonin Brisuda, M.D.^g,
Bedeir Ali-El-Dein, M.D.^h, Sigolene Galland, M.D.^f, Justin Gregg, M.D.^e, Melih Balci, M.D.^e,
Kola Olugbade Jr, M.D.^c, Michael Rink, M.D.ⁱ, Hans-Martin Fritsche, M.D.^j,
Maximilian Burger, M.D.^j, Marko Babjuk, M.D.^g, Arnulf Stenzl, M.D.^a,
George N. Thalmann, M.D.^k, Hubert Kübler, M.D.^b, Jason A. Efstathiou, M.D.^f

^a Department of Urology, University of Tübingen, Tübingen, Germany

^b Department of Urology, Julius Maximilians University, Würzburg, Germany

^c Department of Urology, University of Michigan, Ann Arbor, MI

^d Institute of Urology, USC/Norris Comprehensive Cancer Center, Los Angeles, CA

^e Vanderbilt University Medical Center, Department of Urologic Surgery, Nashville, TN

^f Massachusetts General Hospital, Harvard Medical School, Boston, MA

^g Department of Urology, 2nd Medical School Charles University, Prague, Czech Republic

^h Mansoura Clinic, Urology and Nephrology Center, Mansoura, Egypt

ⁱ Department of Urology, University Medical Center Hamburg-Eppendorf, Hamburg-Eppendorf, Germany

^j Department of Urology, University Hospital Regensburg, Regensburg, Germany

^k Department of Urology, University Hospital, Bern, Switzerland

Received 16 July 2017; received in revised form 7 September 2017; accepted 12 September 2017

Abstract

Background: To evaluate the impact of salvage therapy (ST) on overall survival (OS) in recurrent primary urethral cancer (PUC).

Patients: A series of 139 patients (96 men, 43 women; median age = 66, interquartile range: 57–77) were diagnosed with PUC at 10 referral centers between 1993 and 2012. The modality of ST of recurrence (salvage surgery vs. radiotherapy) was recorded. Kaplan-Meier analysis with log-rank was used to estimate the impact of ST on OS (median follow-up = 21, interquartile range: 5–48).

Results: The 3-year OS for patients free of any recurrence (I), with solitary or concomitant urethral recurrence (II), and nonurethral recurrence (III) was 86.5%, 74.5%, and 48.2%, respectively ($P = 0.002$ for I vs. III and II vs. III; $P = 0.55$ for I vs. II). In the 80 patients with recurrences, the modality of primary treatment of recurrence was salvage surgery in 30 (37.5%), salvage radiotherapy (RT) in 8 (10.0%), and salvage surgery plus RT in 5 (6.3%) whereas 37 patients did not receive ST for recurrence (46.3%). In patients with recurrences, those who underwent salvage surgery or RT-based ST had similar 3-year OS (84.9%, 71.6%) compared to patients without recurrence (86.7%, $P = 0.65$), and exhibited superior 3-year OS compared to patients who did not undergo ST (38.0%, $P < 0.001$ compared to surgery, $P = 0.045$ to RT-based ST, $P = 0.29$ for surgery vs. RT-based ST).

Conclusions: In this study, patients who underwent ST for recurrent PUC demonstrated improved OS compared to those who did not receive ST and exhibited similar survival to those who never developed recurrence after primary treatment. © 2017 Elsevier Inc. All rights reserved.

Keywords: Primary urethral carcinoma; Radiotherapy; Recurrence; Salvage; Surgery

¹Both authors equally contributed to the article.

* Corresponding author. Tel.: +49-707-1298-6615; fax: +49-707-129-5092.

E-mail address: georgios.gakis@gmail.com (G. Gakis).

1. Introduction

Primary urethral carcinoma (PUC) is a very uncommon but potentially lethal genitourinary malignancy that meets

the definition of a “rare cancer” entity accounting for well under 0.1% of all malignancies. In Europe, the annual incidence of PUC is estimated at 650 new cases with an age-standardised ratio of 1.6/million in men and 0.6/million in women [1], with higher rates in the United States (4.3/million in men and 1.5/million in women) according to the Surveillance, Epidemiology and End Results registry [2].

Prognosis of patients with PUC mainly depends on pathologic tumor and nodal stage and location of primary tumor [3]. As recurrence after primary treatment is associated with a dismal prognosis, recent studies have highlighted the role of perioperative chemotherapy [4] and consolidative surgery after chemotherapy [5] for achieving long-term survival even in patients with locally advanced stages. Therefore, optimizing treatment of advanced urethral cancer has become the focus of international health care authorities aiming at improving oncological efficacy and quality of life of patients with this rare malignant disease [6].

Given the rarity of this cancer, there remain critical gaps in our understanding of the management of patients with recurrent PUC. In particular, there are no reports we are aware of addressing the role of surgery and radiotherapy in patients with recurrence after primary treatment. Theoretically, using surgery and radiotherapy as a primary option for local treatment of recurrence may inherit some potential for “salvaging” the disease. To evaluate this further, we have assembled a multi-institutional collaborative with the aim of determining the prognostic effect of surgery and radiotherapy in patients with recurrent PUC.

2. Methods

2.1. Patient cohort

The clinical and pathologic records of a total of 139 patients were reviewed who were treated for PUC at 10 academic centers between 1993 and 2012. Institutional Review Board approval or approval by the local ethics committee was obtained at each site. After agreement for data collection, a computerized database was generated for data transfer. The primary objective of this study was to assess the effect of the modality of treatment (salvage surgery vs. RT-based ST) for recurrence on overall survival (OS). Secondary objectives included the rate of usage of endoscopic vs. open vs. radiotherapy-based salvage treatment, clinical and pathologic tumor characteristics according to the each treatment arm, survival rates according to the location of recurrence.

2.2. Clinical and pathologic parameters

The modality of therapy at the time of primary (definitive) treatment was assessed in all patients. To understand the effect of the modality of treatment for recurrence, this

study assessed the subset of patients receiving surgery or radiotherapy or both as compared to patients who did not receive these modalities for managing recurrent disease. Neoadjuvant and adjuvant chemotherapy was administered to the discretion of the treating physician based on clinical and pathologic risk factors [4]. Given the retrospective nature of the study and time period during which the cases were accrued, a standardized protocol for radiotherapy-based primary treatment as well recurrence was not available across centers. In general, a dose of 40 to 45 Gy was delivered to the pelvic region by external beam radiotherapy with an additional boost to the primary tumor of 20 to 24 Gy delivered either by intensity-modulated radiotherapy or brachytherapy in some cases.

2.3. Surgery

The modality of surgical treatment included endoscopic resection or ablation, partial/total urethrectomy, prostatectomy, or radical cystectomy with urethrectomy and urinary diversion. Bilateral regional lymph node dissection (LND) was performed at the discretion of the treating surgeon based on intraoperative findings and preoperative cross-sectional imaging. The level of LND was based on the location of the primary tumor and typically included the inguinal lymph nodes, external and internal iliac, obturator and common iliac lymph nodes [3].

2.4. Clinical and histologic assessment

The following clinical and histopathologic parameters were assessed: age at primary treatment, gender, clinical and histopathologic tumor stage, clinical and histopathologic lymph node tumor involvement, underlying histology, tumor grade, tumor location (proximal vs. distal), pretreatment serum creatinine level, use of perioperative chemotherapy at primary treatment, location of recurrence, modality of surgery for primary treatment of recurrence, and use of systemic (palliative) chemotherapy. In men, proximal tumor location was defined as a tumor located in the prostatic, membranous or bulbar urethra, and anteriorly when located in the penile urethra and fossa navicularis. In women, proximal tumor location was defined as a tumor located in the proximal two thirds of the urethra and anteriorly when located in the distal third [4].

The histologic assessment was performed at the center-specific pathology department and was based on the WHO grading system and TNM classification as approved by the AJCC. The pathologic macroscopic and microscopic evaluation of specimens included cross-sectioning of the entire specimen with immunohistochemical staining to identify the presence of urothelial, squamous cell, and adenocarcinoma or rarer entities if needed [7].

Download English Version:

<https://daneshyari.com/en/article/8790190>

Download Persian Version:

<https://daneshyari.com/article/8790190>

[Daneshyari.com](https://daneshyari.com)