

Urologic Oncology: Review Questions

Badrinath R. Konety, MD, MBA

QUESTIONS

Choose the single best answer for each question.

Questions 1 and 2 refer to the following case study.

1. A 22-year-old man presents with a left testicular mass and a serum β human chorionic gonadotropin (β HCG) of 8200 mIU/mL, α -fetoprotein (AFP) of 12,200 ng/mL, and a lactate dehydrogenase (LDH) level of 214 U/L. Radical orchiectomy reveals a mixed nonseminomatous germ cell tumor. Staging computed tomography (CT) scan reveals a 8-cm conglomeration of nodes in the para-aortic region (Figure 1). Chest radiograph demonstrates multiple bilateral pulmonary nodules, and a mass lesion in the frontal lobe is detected on CT scan of the brain. This places the patient in which one of the following risk categories?

- (A) Excellent risk (D) Poor risk
(B) Good risk (E) Cannot assign a category
(C) Intermediate risk

2. What is the best chemotherapeutic regimen to treat this patient?

- (A) Bleomycin, etoposide, and cisplatin (BEP) \times 3 cycles
(B) BEP \times 4 cycles
(C) Cisplatin, vinblastine, and bleomycin (PVB) \times 3 cycles
(D) Etoposide and cisplatin (EP) \times 4 cycles
(E) Salvage regimen with etoposide (VP-16), ifosfamide, and cisplatin (VIP)

3. A 54-year-old man is referred after having undergone a partial penectomy for a fungating mass on the left side of his glans penis. Histologic evaluation reveals a poorly differentiated squamous cell carcinoma of the penis invading into the corpus spongiosum (stage pT2). No nodes are palpable. What is

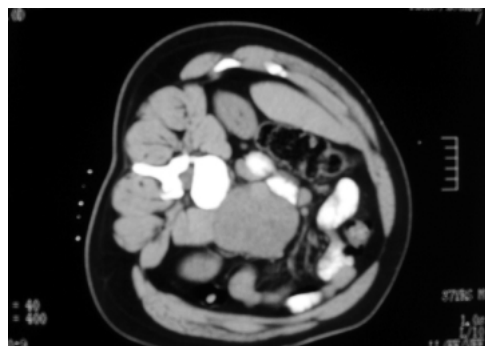


Figure 1. Para-aortic adenopathy in a patient with testicular cancer.

the best choice for managing this patient's penile cancer at this point?

- (A) Observation and delayed left inguinal lymphadenectomy
(B) Immediate left inguinal lymphadenectomy and possible superficial and deep right inguinal lymphadenectomy if left side is positive
(C) Immediate bilateral superficial inguinal lymphadenectomy
(D) Immediate left-sided superficial lymphadenectomy and observation of the right side
(E) Delayed bilateral inguinal lymphadenectomy at the time of relapse
4. A 64-year-old man undergoes radical prostatectomy with pelvic lymphadenectomy after presenting with a serum prostate-specific antigen (PSA) level of 11.4 ng/mL and a prostate biopsy revealing Gleason 3+4 adenocarcinoma in 4/6 cores from the left prostate and 2/6 cores from the right prostate. Final pathologic analysis is Gleason 3+4, pT2b, N1, Mx. Preoperative bone scan is negative. What is the best course of management for this patient at this point?
- (A) Continued observation with serial PSA levels
(B) Androgen ablation therapy with orchiectomy or luteinizing hormone-releasing hormone (LHRH) agonists

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Dr. Konety is an Assistant Professor in the Departments of Urology and Epidemiology, University of Iowa, Iowa City, IA.

- (C) Radiation therapy to the prostatic bed
- (D) Adjuvant androgen ablation therapy and radiation therapy to the prostatic bed
- (E) Combined androgen blockage with antiandrogen (bicalutamide) and LHRH agonists

5. A 37-year-old man presents with a history of microscopic hematuria. CT scan reveals the presence of 2 exophytic, solid, contrast-enhancing 3-cm lesions in his right kidney and a 5-cm simple cyst in the left kidney. There is no lymphadenopathy or evidence of metastases. He undergoes wedge resections of both masses. What will the pathologic examination most likely reveal?

- (A) Chromophobe renal cell carcinoma
- (B) Clear cell carcinoma
- (C) Oncocytoma
- (D) Papillary renal cell carcinoma
- (E) Transitional cell carcinoma

EXPLANATION OF ANSWERS

1. **(D) Poor risk.** Risk assessment for patients with testicular tumors is extremely important and can help predict prognosis. The International Germ Cell Consensus risk designation is based on serum tumor marker levels (S stage) and the presence or absence of nonpulmonary visceral metastases.^{1,2} For nonseminomatous germ cell tumors, presence of a gonadal or retroperitoneal primary tumor with an AFP less than 1000 ng/mL, β HCG less than 500 mIU/mL, LDH less than 1.5 times normal, and absence of nonpulmonary visceral metastases is considered good-risk disease. A similar tumor location with an AFP 1000 to 10,000 ng/mL, β HCG 5000 to 50,000 mIU/mL, LDH 1.5 to 10 times normal, and absence of nonpulmonary visceral metastases is considered intermediate-risk disease. The presence of a mediastinal primary tumor, AFP greater than 10,000 ng/mL, β HCG greater than 50,000 mIU/mL, and LDH greater than 10 times upper limit of normal with the presence of nonpulmonary visceral metastases is considered poor-risk disease.
2. **(B) BEP \times 4 cycles.** This patient has significantly elevated serum tumor markers (S3) and has clinical stage III disease. He has extrapulmonary visceral metastases, placing him in the poor-risk category. He would benefit most from induction chemotherapy with 4 cycles of BEP, which is more effective in these patients.
3. **(C) Immediate bilateral superficial inguinal lymphadenectomy.** Approximately 20% of patients with

squamous cell carcinoma of the penis who have nonpalpable nodes also have occult inguinal lymph node metastases, and inguinal lymphadenectomy can be curative in these patients.³ Cross-over of the lymphatic vessels at the base of the penis can allow contralateral metastases to occur. While observation with delayed lymphadenectomy would avoid unnecessary lymphadenectomy, survival is lower in patients who have delayed lymphadenectomy. High-grade tumors that are T2 or greater have an increased likelihood of inguinal nodal metastases and would benefit from prophylactic lymphadenectomy.

4. **(B) Androgen ablation therapy with orchiectomy or LHRH agonists.** Traditionally, there has been some question about the survival benefit of early androgen ablation instituted prior to the appearance of systemic metastases versus late androgen ablation upon the appearance of symptomatic metastases. However, more recent data⁴ suggests that in the presence of pathologically documented nodal metastases, immediate institution of hormonal therapy may improve long-term survival.

5. **(D) Papillary renal cell carcinoma.** There are 5 commonly recognized histologic subtypes of renal cell carcinoma: clear cell, papillary, chromophobe, collecting duct, and oncocytoma. Of these subtypes, papillary renal cell carcinoma is considered most likely to present as multifocal tumors in the same kidney.⁵ This likelihood mandates complete exposure of the entire renal surface during partial nephrectomy and the use of intraoperative ultrasonography to avoid missing small tumors.

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