## **Biochemical Failure After Treatment of Testis Tumor**

Abbas Basiri, Mohammad Hadi Radfar

Urol J. 2010;7:59-60. www.uj.unrc.ir

## CASE PRESENTATION

A 37-year-old man was admitted with a hard large mass in the right testis in 1992. Serum levels of  $\beta$ -human chorionic gonadotropin and  $\alpha$ -fetoprotein ( $\alpha$ -FP) were 280 IU/mL and 0.5 IU/mL, respectively. After right inguinal orchidectomy, pathologic examination result was reported as teratoma with choriocarcinoma without involvement of the spermatic cord. The patient was followed up with laboratory tests and computed tomography (CT).

In 1994, CT revealed a lymph node in the right iliac fossa. Since tumor markers were within reference ranges, lymphadenectomy was not performed. In 2001, following a rise in  $\beta$ -human chorionic gonadotropin and  $\alpha$ -FP levels, CT results of the patient was normal except for the right iliac fossa lymphadenopathy (Figure 1). The patient underwent

retroperitoneal lymph node dissection. Although the lymph node was adhered to the iliac vessels and the bladder, it was completely removed. Pathology examination revealed the lymph node contained metastatic adenocarcinoma confirmed by immunohistochemistry. Para-aortic lymph nodes did not contain any tumoral tissue. Postoperative chemotherapy was administered using 4 courses of bleomycin, etoposide, and cisplatin regimen. Tumor markers dropped into the normal range after chemotherapy. Follow-up studies including upper gastrointestinal tract endoscopy, colonoscopy, total body bone scan, and CT did not show any abnormality.

In 2002, about 7 months after the last course of chemotherapy, serum  $\alpha$ -FP levels rose again. Chemotherapy was performed using 4 courses of vinblastin, ifosfamide, and cisplatin. Again, CT scan and bone scan were normal. In 2003, nearly 6 months after the last course of chemotherapy,  $\alpha$ -FP level rose again. High-dose chemotherapy (carboplatin, etoposide, and ifosfamide) and autologous bone marrow transplantation were



**Figure 1.** Computed tomography in 2001 revealed lymphadenopathy in the right iliac fossa. L indicates lymph node, and B, bladder.

Urology and Nephrology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Corresponding author: Abbas Basiri, MD Urology and Nephrology Research Center, 9th Boustan St, Pasdaran Ave, Tehran, Iran Tel: +98 21 2256 7222 Fax: +98 21 2256 7282 E-mail: basiri@unrc.ir

## Clinical Pathology Case



**Figure 2.** Computed tomography in 2004 showed lymphadenopathy in the right iliac fossa.

performed. However,  $\alpha$ -FP levels increased to 550 IU/mL in 2004. Computed tomography, bone scan, and positron emission tomography revealed no evidence of metastasis. Since all other tests were normal, the patient was treated with 3 courses of capecitabine. Serum level of

 $\alpha$ -FP did not change; therefore, 3 courses of paclitaxel were administered. Serum  $\alpha$ -FP level increased to 2250 IU/mL, while imaging studies were normal. In December 2004, CT showed a lymphadenopathy in the right iliac fossa (Figure 2). Lymphadenectomy was undertaken and pathology assessment revealed germ cell tumor in 8 of 12 removed lymph nodes. Two months later, serum level of  $\alpha$ -FP decreased to 157 IU/mL. However, in 2005, serum  $\alpha$ -FP level again rose to 450 IU/mL. Computed tomography and other imaging studies were normal.

## QUIZ

What could be the possible source of AFP raise?

What is your suggestion as the next step of diagnosis and treatment?

The answers will be discussed in the next issue of Urology Journal.