Testicular Seminoma With Pseudocyst and Coagulation Necrosis Like Burned-out Tumor: A Case Report

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Abstract

Testicular seminoma is a relatively common testicular cancer; however, testicular seminoma with pseudocyst is an extremely rare. The ‘burned-out’ phenomenon in germ cell tumors refers to a germ cell tumor in extra-gonadal tissues with spontaneous regression of an intra-gonadal tumor. We present a case of the testicular seminoma with pseudocyst and coagulation necrosis like burned-out tumor without metastasis. The publication of this case was approved by the institutional review board and informed consent for publication was given by the patient.

A case report

57-year-old man had two year history of gradually growing left testicular mass without pain and visited our hospital on August 15, 2015. Left testis was elastic hard with 60 × 45 mm in size. Scrotal ultrasound of left testis showed homogenous mass. Serum α-fetoprotein (AFP) and lactate dehydrogenase (LDH) were 8.4 ng/ml and 488 IU/l respectively. Serum β-human chorionic gonadotropin (HCG) was less than 0.1 mIU/ml. Computed tomography showed a left testicular cystic tumor with thin wall enhancement with 40 mm in diameter (Fig. 1). No metastasis was revealed.

The presumptive diagnosis was left cystic testicular tumor. The patient underwent left high orchiectomy on August 20, 2015. The serum levels of AFP and LDH returned to within normal ranges after surgery. He was discharged from the hospital on August 21, 2015.

The tumor was well-circumscribed and 40 × 30 × 20 mm in size macroscopically. The cut surface of the tumor demonstrated the cystic structure containing yellowish brown fluid. Compressed residual crescent parenchyma was seen. Inverted cut surface of testicular parenchyma shows remnant tumor tissues, with hemorrhage and necrotic tan color, distributed like “cystic wall” of the
burned-out tumor (Fig. 2). Microscopic analysis showed that the tumor was a typical seminoma with coagulation necrosis like burned-out tumor (Fig. 3). Testicular tumor and parenchyma were separated with fine fibrous septa, and the tumor cells show hemorrhage with apoptosis and coagulation necrosis. Typical lymphocytic infiltration is also seen. Tumor cells were positive for PLAP, c-kit and D2-40 – immunohistochemical staining characteristics indicative of classical seminoma.

There were no HCG positive cells and AFP positive cells in the lesion.

Discussion

We showed a case of the testicular seminoma with pseudocyst. There have been reported cystic seminomas of anterior mediastinal lesions; however, cystic changes in classic seminoma of the testis were extremely rare and most cases were reported with elevated serum HCG. In most reported cases, the diffuse cystic architecture related to the presence of syncytiotrophoblast giant cells that had undergone massive pseudocystic change. In this case, serum β-HCG was less than 0.1 mIU/ml and the tumor was a typical seminoma with coagulation necrosis like burned-out tumor without HCG positive cells and AFP positive cells in the lesion.

The ‘burned-out’ phenomenon in germ cell tumors refers to a germ cell tumor in extra-gonadal tissues with spontaneous regression of an intra-gonadal tumor. This case had a testicular seminoma with coagulation necrosis like burned-out tumor; however, there was no metastatic lesion in extra-gonadal tissues.
**Conflicts of interest**
None.

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