Myxoid Liposarcoma of Spermatic Cord Misdiagnosed for Hemangioma

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Myxoid liposarcoma arose from the spermatic cord is very rare. Also, it is difficult to diagnose by clinical findings or radiologic study. Even if it was a malignant tumor, scrotal malignancy is often misdiagnosed in many cases. A 55-year-old man presented with a mass in the left scrotum. Tumor markers showed all normal range. A scrotal magnetic resonance imaging scan revealed a vascular tumor such as a hemangioma. But, we performed radical orchiectomy. The mass was diagnosed as paratesticular myxoid liposarcoma. It is important to keep in mind the differential diagnosis of paratesticular liposarcoma in the case of a painless scrotal tumor. (Korean J Urol Oncol 2018;16:86-88)

Key Words: Spermatic cord • Liposarcoma • Orchiectomy

The majority of the tumors arose from the spermatic cord are benign tumors, and malignant tumors are very rare. In addition, 90% of primary malignant tumors occurring in the spermatic cord are a sarcoma, but liposarcoma is very rare.^{1,2} Especially, Myxoid liposarcoma that occurred in a spermatic cord is an extremely rare disease. Most patients visited the hospital owing to painless inguinal mass. Therefore, it is possible to be misdiagnosed for an inguinal hernia, hydrocele, or lipoma. Radiologic findings are often not differentiated from other tumors in many cases, thus a diagnosis will be confirmed after surgical operation. The goal of this report is to help surgeons planning this rare case, by making a report on myxoid liposarcoma misdiagnosed as a hemangioma.

CASE REPORT

The patient was a 55-year-old man with a left scrotal mass. The patient had hypertension in past medical history and there was no other uniqueness in medical and family history. In the physical examination, the left scrotal painless mass of about 10 cm in diameter was palpated with soft to firm, inguinal lymph node (LN) was not palpated. Ultrasonography (USG) showed a solid extratesticular mass with inhomogeneous echo and high vascularity. We suspected clinically malignant cancer, then we performed testis magnetic resonance imaging (MRI), abdominal pelvis computed tomography (CT), whole body bone scan, chest X-ray, and tumor marker for further evaluation. Chest X-ray showed fibrotic bands and multiple calcification in left upper lung fields. It was seemed to be old inflammatory sequelae. Abdominal pelvis CT showed an extratesticular soft tissue lesion with enhancement and surrounded prominent vascular structures in the left scrotum. There were no demonstrable significant LN enlargements in the abdomen. Testis MRI showed well-defined extratesticular mass with bright signal intensity (SI) on T2-weighted image, iso-SI on T1-weighted im-

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age (T1WI) with internal slightly high SI portions and strong enhancement on postcontrast T1WI in left scrotal mass (Fig. 1A). Radiologic findings showed that the mass was vascular tumor such as a hemangioma. There were no remarkable findings in the right scrotum. Tumor markers, α -fetoprotein (2.90 ng/mL), β -human chorionic gonadotropin (<0.1), lactate dehydrogenase (295) showed all normal range. The mass was diagnosed as a benign tumor after final radiology conference. We planned a radical orchiectomy with high ligation, even though, the mass was difficult to extract through the internal inguinal ring due to large size. Surgical findings showed that tunica vaginalis was intact and surrounded the testis with the tumor (Fig. 1B). Pathological findings showed that grossly, the outer surface of tumor encapsulated by the thick fibrous capsule with focal thickening. On section, the tumor was well-circumscribed, multinodular, showing glistening and gelatinous cut surface. The secondary hemorrhagic change was also noted (Fig. 1C). At low power view of the tumor showing nodular growth pattern, enhanced cellularity. There were mixture of uniform round to oval shaped nonlipogenic cells and small signet-ring lipoblasts in prominent myxoid stroma, rich in delicate, “chicken-wire” capillary vasculature (H&E, $\times 100$) (Fig. 1D). A free margin of the tumor was achieved, thus we did not plan adjuvant radiotherapy. Eighteen-month follow-up of the patient

was unremarkable.

DISCUSSION

The majority of tumors occurring in the spermatic cord are benign (70%–80%), most of which are occupied by lipoma. Liposarcoma is the most common subtype of sarcoma that accounts for approximately 20%. The most common sites are the femoral area and retroperitoneum. Liposarcoma of spermatic cord is a very rare tumor and constitutes about 7%–12% of paratesticular sarcomas.^{3,4} Liposarcoma is classified as pathologically well-differentiated, dedifferentiated, myxoid and pleomorphic type. Each subtype may be mixed with each other. In particular, well-differentiated liposarcoma is most commonly 40% to 50%.⁵ Myxoid liposarcoma that develops in the groin is a generally asymptomatic tumor. Ultrasonography (USG) is the initial way to evaluate scrotal tumor. Generally, USG shows solid, hyperechoic, heterogeneous lesions that are generally distant from the testicles. However, USG findings are very diverse and nonspecific. Then, paratesticular liposarcoma is often misdiagnosed as an inguinal hernia, hematoma, and lipoma in many cases.⁶ CT findings of liposarcoma show fat attenuation or mixed septation with soft tissue mass and it appears variable depending on histological subtype and the amount of fat

Fig. 1. (A) Magnetic resonance sagittal image. The strong enhancement on postcontrast T1-weighted image in left scrotal mass. (B) Specimen obtained from inguinal radical orchiectomy. (C) Gross finding of the specimen. The tumor was well-circumscribed. (D) Histological slide showing a mixture of non-lipogenic cells and small signet-ring lipoblasts in the prominent myxoid stroma (H&E, $\times 100$).

component.⁷ MRI is a good way to diagnose soft tissue. Also, it can better discriminate tumor, inflammation, vascular abnormality or a hernia compared to USG.⁸ T1WI is a good way to diagnose fat in lipoma and liposarcoma appearing in a high signal SI.^{9,10} However, in our case, the mass showed iso SI with small slightly high SI on a T1WI, therefore, the radiologist diagnosed the tumor as a vascular tumor such as hemangioma. Therefore, in most cases, diagnosis is determined based on the results of pathological examination after surgery. Because extratesticular malignant tumor may be mistaken for a benign tumor in radiology study, the physician must pay attention to the possibility of liposarcoma. The best treatment is radical orchiectomy and high ligation of the spermatic cord. Furthermore, extensive local resection is necessary to cure the effect and to prevent recurrence. There is a discussion about adjuvant chemotherapy or radiotherapy after surgery is performed. We achieved a free margin from the tumor. Therefore, we did not additional adjuvant radiotherapy. It is important to keep in mind the differential diagnosis of paratesticular mass, even though the mass was diagnosed as a benign tumor.

CONFLICT OF INTEREST

The author claims no conflicts of interest.

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