Case Report

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Malignant Mesothelioma of the Epididymis: A Case Report

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Key Words
Epididymis • Malignant mesothelioma

Abstract
Malignant mesothelioma of the epididymis is a very rare tumor. We report a case of a 33-year old male with a left hydrocele that presented for evaluation of infertility. Scrotal ultrasound revealed a left extratesticular mass. Final pathology revealed malignant mesothelioma involving the epididymis, with well differentiated epithelioid morphology. Metastatic workup was negative.

Case Presentation

A 33-year-old male with a left hydrocele presented with the complaint of infertility. Scrotal ultrasound revealed a 1.5 cm extratesticular mass on the left epididymis. Due to his desire to have children, he elected to delay surgical removal of the mass.

Over the course of 42 months, the patient had 6 surveillance scrotal ultrasounds. The epididymal mass enlarged to 2.2 cm and 2 additional masses, each 0.8 cm in size, appeared on the left scrotal wall. The patient and his wife were able to have both a daughter and a son during this time.

The patient underwent a bilateral vasectomy, left hydrocelectomy and left epididymectomy. Final pathology revealed malignant mesothelioma, predominantly showing well differentiated epitheloid morphology, involving the epididymis. In addition, two foci of malignant mesothelioma, predominantly showing well differentiated epitheloid morphology, involving the hydrocele sac was also seen.

The patient denied any history of asbestos exposure. Evaluation with a chest X-ray and CT scan of the abdomen and pelvis was negative. The patient then underwent a left radical orchiectomy approximately one month after his previous surgery. Final pathology was negative for residual mesothelioma. Repeat CT scan of the chest, abdomen and pelvis, performed at four months postoperatively, was also negative. The patient continues to follow-up regularly and is disease-free at 9 months.

Discussion

Paratesticular mesotheliomas are rare tumors, with less than 250 cases reported to date, and account for only 0.3 to 1.4% of all cases of malignant mesotheliomas [1]. It can occur at any age with the highest incidence between 55 years and 75 years [2]. Although trauma, herniorrhaphy and long-term hydrocele [3] have been considered as the predisposing factors for development of malignant mesothelioma, the only well established risk factor is asbestos exposure [2, 4]. However, a correlation between asbestos exposure and mesothelial neoplastic proliferation could be documented in only less than half of the cases [2]. Out patient denied having any previous exposure to asbestos.

Patients with malignant mesothelioma of the tunica vaginalis frequently have a progressively enlarging hydrocele, and rapid re-accumulation of fluid after aspira-

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tion raises the suggestion of malignancy [5]. The diagnosis can sometimes be made only after presentation with a recurrent hydrocele or invasion of the scrotum [6]. In our case, the initial epididymal tumor increased in size at a very slow rate but eventually subsequent small tumors arose from the hydrocele sac.

Sonographically, malignant mesothelioma is usually characterized by a hypoechoic hydrocele with heterogeneous masses of increased echogenicity at the periphery [7]. However, ultrasonography is not able to definitively determine the actual disease process. As in our case, the radiology reports suggested the possibility of a benign epididymal mass, supernumerary testis or epididymal neoplasm- either primary or metastatic.

Radical inguinal orchiectomy is accepted as the optimal treatment for paratesticular malignant mesothelioma [2]. The necessity for inguinal or iliac lymph node dissection as primary therapy remains controversial [2]. The role of chemotherapy for malignant mesothelioma remains undefined [8]. Additionally, the efficacy of adjuvant radiotherapy has not yet been clearly determined [2].

Local recurrence after orchiectomy is reported in approximately 10% of the patients [2]. Almost 40% of the patients die from their disease, with a median survival of 24 months [2, 4]. Computed tomography scans are recommended for detection of retroperitoneal lymph nodal spread, which is found in 15% of cases [9] and for which retroperitoneal lymphadenectomy may be considered [4, 9].

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