A 64-year-old male presented with left scrotal swelling that had progressed over several years. Presentation was delayed, and physical examination during a urologic consultation demonstrated watermelon-sized swelling of his scrotum with significant lymphedema. The patient denied left testicular pain but indicated discomfort because of the size of his scrotum. His initial imaging assessment included a testicular ultrasound that showed multiple complex solid and cystic masses throughout his left scrotum without definite visualization of the left testicle. Testicular tumor markers, including alpha fetoprotein and beta hCG, were negative. A contrast-enhanced computed tomography (CT) exam showed a large complex left extratesticular scrotal mass (Figure 1). The patient underwent a radical left orchiectomy, left hemiscrotectomy, left retroperitoneal lymph node dissection and complex scrotoplasty. He was discharged from the hospital two days later.

**Discussion**

Tumors in the scrotum are generally classified as intratesticular or extratesticular. Statistically, intratesticular tumors are more likely to be malignant than extratesticular tumors, which are typically benign. Extratesticular tissue includes the epididymis, vestigial remnants, tunica vaginalis and spermatic cord.

The majority of extratesticular abnormalities include epididymal head cyst/spermatocele, scrotal fluid collections (e.g., hydrocele or pyocele), hernias and inflammatory lesions (e.g., epididymitis). The most common extratesticular soft-tissue neoplasm of the scrotum is a lipoma, which represents up to 45% of extratesticular masses. Other benign nonepididymal mesenchymal masses of the scrotum include leiomyoma, neurofibroma, granular cell tumor and fibrous pseudotumor. Most malignant extratesticular tumors are sarcomas that arise from the spermatic cord. These neoplasms include liposarcoma, rhabdomyosarcoma, leiomyosarcoma and malignant fibrous histiocytoma—all of which are rare.

This was a case of liposarcoma, which typically presents as an enlarging, painless scrotal mass. This patient’s tumor was classified as a myxoid liposarcoma with areas of dedifferentiation (Figure 2); it measured 25.4 x 21.5 x 20.0 cm and weighed 18 lbs.

Extratesticular liposarcoma is a rare neoplasm. Cases are typically reported individually or in larger studies of liposar-
Liposarcoma throughout the body; the mean age of presentation is 63 years.1,3 Radical orchiectomy is the primary treatment. Liposarcomas are the most radio-sensitive of sarcomas. Therefore, radiation therapy can be used to treat intermediate or high-grade tumors.1 Local recurrence has been described in up to 25% and metastasis in 10% of patients. Positive lymph nodes can be seen in nearly 40% of cases; in this case, suspicious lymph nodes shown on CT were negative upon histopathologic analysis.3

Ultrasound is the best imaging modality for initial testicular evaluation given its accessibility, low cost and ability to produce high-resolution images in real-time.2,3 However, ultrasound findings can be inconclusive given variable and non-specific characterization.2 CT and/or MRI is often the next step in evaluation. CT is useful for excluding an inguinal hernia and for characterizing the morphology of a mass and staging a mass. The wide field of view and high-contrast spatial resolution of MRI is useful for localization, defining anatomic relationships and tissue characterization (eg, fat, fibrosis, blood products, etc.).2,4

In summary, extratesticular liposarcoma is a rare neoplasm treated with orchiectomy. It tends to have a prolonged clinical course and potential for recurrence and metastasis. MM

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Figure 2. Myxoid liposarcoma surgical specimen

Learning points

- Testicular tumors are generally classified as intra- or extratesticular. Intratesticular tumors are usually malignant, and extratesticular tumors are most likely benign.
- Ultrasound is the initial imaging modality of choice for evaluation of the testes. Further characterization of a testicular abnormality can be achieved with contrast-enhanced CT or MRI.
- Liposarcoma is a rare extratesticular neoplasm. Such tumors often present as a painless, enlarging mass that can be mistaken for other benign extratesticular abnormalities including an inguinal hernia. An extratesticular liposarcoma is most commonly treated with radical orchiectomy and sometimes with radiation and chemotherapy, depending on histologic grade and staging.

References