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Sarcoidosis of Genitourinary Tract

- Sarcoidosis is considered a multisystem disorder of unclear etiology which can affect many organ, characterized by the presence of widespread, noncaseating granulomas. It is thought to represent a disorder of cell-mediated immunity. It presents a wide spectrum of clinical manifestations and radiographic findings.
- Renal involvement is seen in 8–19 % of patients; sarcoidosis may occasionally have a pseudotumors (lymphoma or metastases) appearance with multiple hypodense lesions involving both kidneys. Their similar enhancement to the rest of the kidney on CT or MRI distinguishes them from malignant lesions. The lesion does not usually distort the renal margin. Characteristically, there is central extension of the column of Bertin. Hydronephrosis may be caused by compression of the ureters by enlarged retroperitoneal nodes.
- Testicular sarcoidosis has been found in 5 % of patients at autopsy. Testicular sarcoidosis presents with a unilateral, nodular, painless scrotal mass in young males. US is the gold standard; in equivocal cases of epididymal involvement,

T2-weighted MRI may reveal a high signal intensity area on a background of normal epididymal tissue.

Sedation for Image-Guided Microsurgery

- Two types of medication may be given to patients: one for sedation and anxiety, a mild sedative such as Midazolam, and another for analgesia. In most average-size adult patients, 1 mg intravenously can be given at the onset and then titrate the needs of the patient during the procedure. As a rule it is probably better to err on the side of giving medication, but if there is no apparent need by the history or from clinical observation of the patient, one should withhold the drugs.

Scrotal Hernia

- Diagnosis of scrotal hernia is usually made on clinically findings, but in rare cases (i.e., patient size, marked enlargement of the scrotum accompanied by acute testicular pain) should be used Magnetic Resonance.
- MRI demonstrates a complex masse within the scrotum and adjacent normal testicular tissue. MRI findings could include air within the bowel or fat content of the mesentery, meconium hernia misdiagnosed on US as testicular mass.

Scrotal Trauma

- Patients present with an acute scrotum and history of trauma. Diagnosis is made in combination with clinical history and US findings.

- MRI can be a useful alternative diagnostic modality for blunt scrotal trauma, especially when ultrasonography results in an inconclusive diagnosis; interruption of the dark signal intensity line of the tunica albuginea being pathognomonic for the diagnosis of testicular rupture.

Seminal Vesicle Cyst

- The seminal vesicles are easily identified on MR images as convoluted tubular structures coursing posterior and superior to the base of the prostate. The seminal fluid shows high signal intensity on T2-weighted images. The walls show low signal intensity.
- Because of spread of tumor to the seminal vesicle occurs directly from the base of the gland or via the ejaculatory ducts, it is important to image the inferior aspect of the seminal vesicle separately from the (low signal intensity) base of the gland with coronal sagittal images.
- Seminal vesicle invasion of prostatic carcinoma has been categorized into three types on the basis of pathologic studies of prostatectomy specimens.
 - Type 1: The most common, invasion involve extension along the ejaculatory ducts superiorly into the medial aspect of the seminal vesicles or ampullae of the vas deferens.
 - Type 2: Invasion involves direct growth superiorly from the base of the prostate into the periprostatic tissue and then into the seminal vesicles.
 - Type 3: Invasion involves foci of tumor within the seminal vesicle without evident connection to tumor in the prostate. These foci may represent metastases.

Suggested Reading

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