“Granulomatous Epididymitis” possibly due to TB

By

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Our Patient
44 Years Old Male
with the
Chief Complain of
Drainage from the right scrotum

Courtesy of Dr. Robert Kane
BIDMC east campus US unit
Present Illness:

- Drainage of whitish fluid from right scrotum over the last ten days
- Sensation of Pain and pressure
- A similar episode one year before spontaneously resolved
Past Medical History:

- Bilateral inguinal hernia repair during childhood
- Left orchiectomy. (Complication of hernial repair)
- Mesh in the right inguinal canal for his hernia
Examination:

• Sinus tract at the lower portion of scrotum that tracks to the lower portion of testicle

• Testicle itself not involved
Social History:

• The patient claims that ejaculation relieves the sensation of pressure and pain
• May have high risk behavior
Plan:

- Testicular U/S
- Resection of the scrotal sinus tract
Anatomy: Normal Testis

- **Head**
- **Body**
- **Tail**
Anatomy: Normal Testis
Our Patient: Testicular Ultrasound

- The right testis: normal in size, echogenicity and vascular flow.

Courtesy of Dr. Robert Kane
Our Patient: Testicular Ultrasound

- The right testis: normal in size, echogenicity and vascular flow.

Courtesy of Dr. Robert Kane
Our Patient: Testicular Ultrasound

- The right testis: normal in size, echogenicity and vascular flow.

Courtesy of Dr. Robert Kane
Our Patient: Epididymal Ultrasound

- The right epididymis: abnormal in thickness and echogenicity

Courtesy of Dr. Robert Kane
Our Patient: Epididymal Ultrasound

- The right epididymis: abnormal in thickness and echogenicity

Courtesy of Dr. Robert Kane
Our Patient: Epididymal Ultrasound

- The head and body of the epididymis: hypoechoic, relatively homogeneous appearance suggesting microtubular dilatation.

Courtesy of Dr. Robert Kane
Our Patient: Epididymal Ultrasound

- The tail of the epididymis: markedly enlarged, heterogeneous and hypervascular,
- Size 1.6 x 2.9 cm.

Courtesy of Dr. Robert Kane
Our Patient: Epididymal Ultrasound

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- The tail of the epididymis: markedly enlarged, heterogeneous and hypervascular,
- Size 1.6 x 2.9 cm.

Courtesy of Dr. Robert Kane
Our Patient: Scrotal Ultrasound

- Multiseptated loculated hydrocele along the medial hemiscrotum contiguous to the enlarged epididymis.

Courtesy of Dr. Robert Kane
Our Patient: Scrotal Ultrasound

- Multiseptated loculated hydrocele along the medial hemiscrotum contiguous to the enlarged epididymis.

Courtesy of Dr. Robert Kane
Our Patient: Scrotal Ultrasound

- Scans over the sinus tract: opening in the scrotal skin along the caudal aspect of the scrotal sac.

Courtesy of Dr. Robert Kane
Our Patient: Scrotal Ultrasound

- Fistulous tract can be followed directly into the enlarged and abnormal epididymal tail.

Courtesy of Dr. Robert Kane
Our Patient: Scrotal Ultrasound

- Fistulous tract can be followed directly into the enlarged and abnormal epididymal tail.

Courtesy of Dr. Robert Kane
Diagram of abnormalities:

- Dialated Head and Body
- Hydrocele
- Head
- Body
- Fistula
- Tail
- Mass
Conclusion:

• Dilation of the epididymal head and body
• Enlargement of the epididymal tail
• Complex septated hydrocele
• Fistula connected to the tail

Courtesy of Dr. Robert Kane
Discussion:
Epididymal dilation

Obstruction

Due to?

Hernia repairs surgery
Epididymal tail mass

Courtesy of Dr. Robert Kane
Why?

Obstruction

Environment for bacteria to grow

Inflammation

epididymitis

Courtesy of Dr. Robert Kane
Enlarged Tail:

Granulomatous Disease
The Disease Is Chronic
Loculated hydrocele

Old Abscess
The pathogen caused erosion and fistula to the skin
Differential Diagnosis:

• Granulomatous epididymitis*
  1. Brucellosis
  2. Tuberculosis
  3. Idiopathic granulomatous epididymo-orchitis

• Epididymal tumors (very uncommon)

• Other bacterial infections(?)

Plan:

- Resection of the Sinus Track of the Scrotum
- Antibiotics
Tuberculous Epididymitis As Secondary Tuberculosis in USA

• Prevalent Among AIDS Patients

• Reported As the First Manifestation of AIDS*

Tuberculous Epididymitis Is * Secondary to Lung Infection and From There Either

• Infection Descending From Kidney or

• Hematogenous

* Chung JJ, Kim MJ, Lee T, Yoo HS, Lee JT.
Sonographic findings in tuberculous epididymitis and epididymo-orchitis.
Sonographic Findings of Tuberculous Epididymitis:

- Heterogenous, hypoechoic swelling of epididymis
- Hypoechoic lesion of the testis
- Associated sinus tract
- Extratesticular calcifications

* Chung JJ, Kim MJ, Lee T, Yoo HS, Lee JT.

Sonographic findings in tuberculous epididymitis and epididymo-orchitis.

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The End