JNP

A 4-Year-Old Boy With Mild Generalized Edema

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CASE PRESENTATION

J.T. is a 4-year-old African-American boy whose mother brings him to your office for a suspected insect bite on his genitalia. She says that, approximately 1 week earlier, J.T. complained of a bug bite. She noticed a small area of swelling around his penis. J.T. did not complain of itchiness or site pain, nor did his mother notice a stinger or other evidence of an insect bite. She took him to an urgent care clinic for this complaint. She shows you the discharge instructions from the clinic, and you find that J.T. was diagnosed with a localized allergic reaction and told to use over-the-counter diphenhydramine cream. You see that no lab work was collected during that visit.

Since then, J.T.'s mother has attempted to use cold compresses and followed the clinic's advice to use diphenhydramine cream, but she says that the swelling has only increased. She notes that J.T.'s scrotum is now mildly enlarged and his eyes seem puffy. She is unsure whether the edema is worse in the morning or at night. She says that J.T.'s voiding pattern has not changed and he does not complain of pain while urinating. She denies any blood in his urine or color changes. He has not had any rashes, fever, weight loss, or increased fatigue.

J.T.'s medical history is unremarkable and until this incident he has been otherwise healthy and developing normally. He is followed by a regular pediatrician and is up to date on all his immunizations. He goes to daycare and has not had any recent illness, including upper respiratory infection. He has no known allergies and has no medications other than diphenhydramine cream.

FAMILY HISTORY

Maternal grandmother, age 59: hypertension, coronary artery disease, diabetes mellitus.
Paternal grandparents: unknown.
Mother, age 27: asthma.
Father, age 31: none reported, smoker.
Sister, age 2: none reported.

EXAM FINDINGS

- Vital signs: temperature 98.7°F; heart rate 72 beats/min; blood pressure 110/66 mm Hg; respiration 16 breaths/min; skin is pink, warm, and dry; weight 17 kg (37.47 lbs.); height 105 cm (41.34 in.). He is in the 51st percentile for weight for height and therefore has a healthy weight.
- General: J.T. is alert and has age-appropriate orientation. He is in no acute distress. He seems well-nourished and has good hygiene.
- Head, ears, eyes, nose, throat: Eyes are notable for mild periorbital edema. Mouth shows no angioedema or rash. Throat shows no erythema, exudates, or swelling. Neck is supple.
- Lungs, chest, and abdomen: Lungs sounds are clear throughout all lung fields and he has no retractions. Heart tones are crisp, clear, and soft, and convey a regular rate and rhythm. No diastolic murmur or friction rub is appreciated. His abdomen is soft, nontender, appears slightly distended, and is without organomegaly or ascites.
- Genitalia: There is mild 1^{+} pitting edema at the distal end of the circumcised penis. The meatus shows no discharge or occlusion. The scrotum appears mildly edematous. The skin shows no erythema. The testes are descended and nontender. No inguinal hernia is seen.
- Skin: No jaundice, rash, or pallor.
- Extremities: Good muscle tone and strength throughout. No pitting edema noted. He ambulates with a steady gait, can hop on one foot, and has normal finger-to-nose coordination.

QUESTIONS TO CONSIDER

1. Given the history and physical exam findings thus far, what should be included as a differential diagnosis for J.T.?

2. What diagnostic tests would be helpful at this stage in the management process?
3. Based on the laboratory findings, are there any further tests you should do? Can you establish a diagnosis?
4. What are the next steps in the management of this patient?

Think you know the answers to these questions? Test yourself and then go to page 383 to read the answers.