

February 2019 post – Painful red nodules of the hand in an adolescent female.

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Photograph 1. Fifteen-year-old white female with painful red nodules on the palms.

This 15 year old white female presents to your office complaining of painful red oval bumps only on her hands for the last 3 days. (Photograph 1) The nodules are spreading somewhat, and becoming more tender. This is the only rash she has developed. She has also noticed some vague tenderness in her knees and wrists in the last week. She has otherwise been healthy, and denies fever, sore throat, cough, vomiting, or diarrhea. She is on no medications except that she recently initiated combination oral contraceptives 3 months ago for menorrhagia. She plays with her grandmother's dog who has been scratching a lot. Her physical examination and vital signs are otherwise normal.

Your differential diagnosis is as follows:

- Hand foot mouth syndrome
- Scabies
- Flea bites
- Eccrine hidradenitis
- None of the above

However, none of these diagnoses seem to capture this particular erythematous ovoid painful nodular condition—it is not itchy, nor pustular, and she has no signs of pharyngitis or fever.

If you did not know any better, could this be a case of erythema nodosum occurring solely on the palms? You have seen this condition occur most always located on the pretibial surface, or rarely on arms and other parts of the legs. But according to Hurwitz's text (*Clinical Pediatric Dermatology*), it may RARELY occur on the soles or palms. And after several days, the red lesions will typically evolve and enlarge into a tawny or tannish shiny lesions , as shown in Photograph 2.

Your initial laboratory evaluation for E. nodosum should consist of the following tests (all of which were negative): pharyngeal strep ADT, Monospot, chest radiograph, intradermal PPD, CBC, ASO titers and ANA.

It most commonly occurs in adolescence and young adulthood, when it is 3-4 times more common in women. Some of the most common causes of e. nodosum include Group A streptococcal infection, mycoplasma, mono and TB. Other possible causes include IBD, sarcoid, leukemia and oral contraceptives (OCP) and pregnancy. In my experience within my huge adolescent practice, OCP's and pregnancy are the most common etiology.

Typically the eruption lasts 3-6 weeks and up to 6 months. Arthralgias also afflict up to 90% of patients, as it did in our patient. Most patients in the office setting are managed with NSAIDs, bed rest, leg elevation and occasionally a short course of prednisone.

In this case, NSAIDs were begun, and OCPs were discontinued immediately, with prompt resolution of the lesions over the next 2 weeks. She was switched to a non-estrogen OCP upon resolution-- without any recurrence of the rash.

Photograph 2. Eight year old African American male with painful shiny tawny, contusion-like large nodules on the pretibial area for several weeks

