PHOTO ROUNDS

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Palpable purpura and a visible sock line

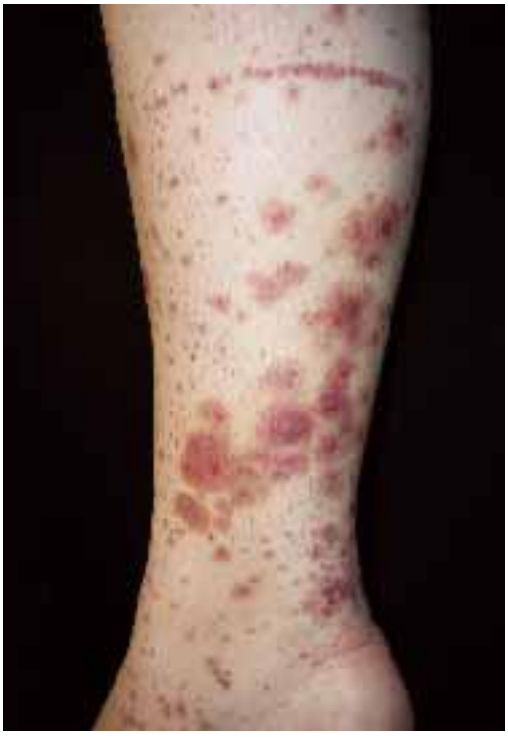
The patient's rash was painful and concentrated around her lower legs, with a clear line encircling her calves

A 21-year-old woman came to the clinic, frightened by a painful purpuric rash on her lower extremities (**FIGURES 1 AND 2**). The lesions appeared suddenly 3 days before, with no prior similar episodes.

The pain, and some swelling that happened when she stood, had finally driven her to take some time off from her job and seek medical advice. She was diagnosed with a case of pharyngitis earlier that week; due to multiple drug allergies, she was prescribed a course of clindamycin. She had not experienced any nausea or vomiting, fever, abdominal cramping, or gross hematuria.

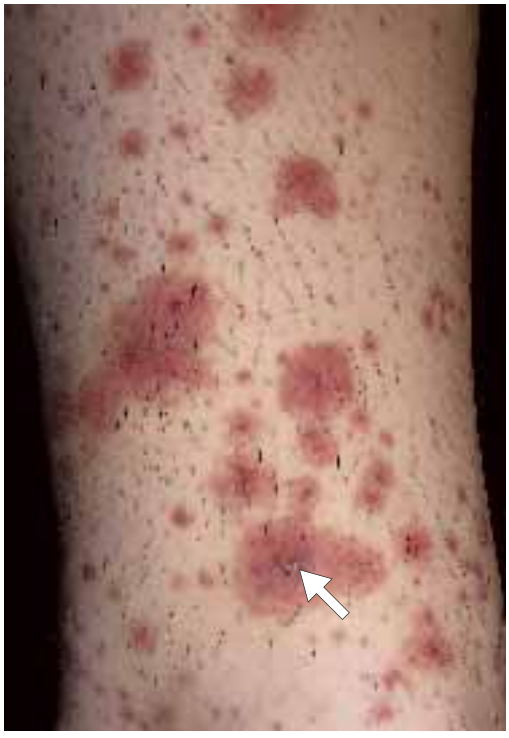
On examination, the patient was friendly and good-humored, although

FIGURE 1 Purpura on the lower leg



The patient had palpable purpura on her lower extremities.

FIGURE 2 Close-up



Close-up of palpable purpura, looking like a target lesion (arrow points to center of target).

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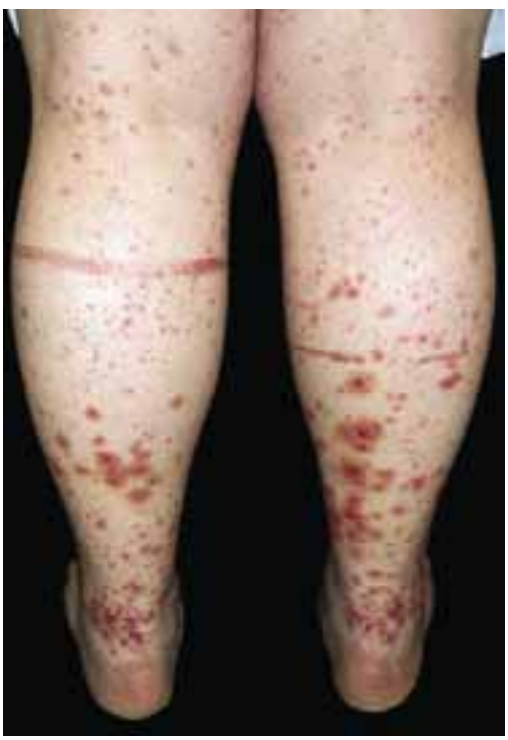
she was concerned about her rash and visibly uncomfortable. She was walking with the aid of a borrowed cane, but her lesions were no longer tender to palpation.

The rash consisted mainly of purpuric papules almost entirely limited to her legs, although some isolated lesions were on her back as well. The papules were concentrated around her distal lower extremities, with a clear line of lesions encircling her calves bilaterally where her knee-high socks had applied pressure for the last 2 days (**FIGURE 3**) Mild edema was noted, but the rest of her physical exam was normal. By dipstick, the patient had blood in her urine but no protein.

What is the diagnosis?

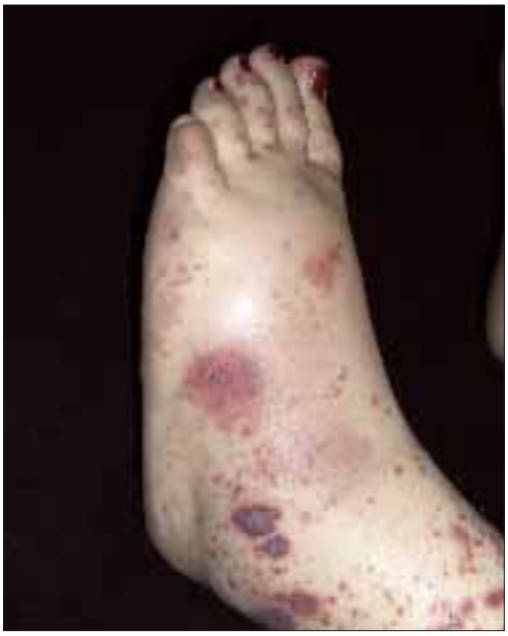
What is the treatment for this condition?

FIGURE 3 Visible sock lines



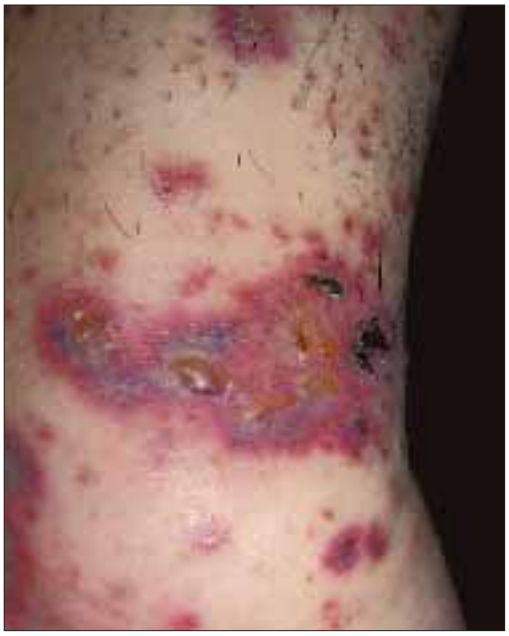
The pressure of her socks created a clear line of lesions encircling her calves.

FIGURE 4 Swollen ankle



As the rash receded, the patient had painfully swollen ankles and feet.

FIGURE 5 Probable infection



Weeping of yellow fluid at a scratch indicated a likely superinfection.

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The rash is pressure- and gravity-dependent and pressure lines may develop, causing "sock lines" such as those seen here

Diagnosis: Henoch-Schönlein purpura

This patient has Henoch-Schönlein purpura (HSP), a systemic vasculitis, secondary to hypersensitivity, occurring most commonly in children and young adults. Its classic triad includes palpable purpura, abdominal pain or renal involvement, and arthritis.[1]

Purpura is typically nonblanching, as it represents extravasation of blood into skin,[2] but lesions may also include urticarial wheals or occasional target lesions. As seen in this patient, the lower extremities and buttocks are typically affected. This rash is pressure- and gravity-dependent and pressure lines may develop, causing "sock lines" such as those seen on this young woman's calves.[1,2] Arthritis also tends to affect large joints in lower extremities more severely than upper extremities, and ankles and knees may be swollen and tender, as observed in our patient.

Abdominal pain, not present in this case, develops in up to 65% of cases, and may be accompanied by vomiting, hematemesis, or blood in stools.

Renal involvement is by far the most long-reaching and potentially serious complication of HSP, particularly in adults. Although only 1% of all HSP patients may develop end-stage renal failure, it is estimated that in adults, this number may be as high as 11%.[3,4] The young woman in question presented with microscopic hematuria initially, which had resolved by the time of her next visit, 4 days later. A worse prognosis is associated with those patients who exhibit both nephritic and nephrotic features, with hematuria and proteinuria, where clinical remission has been shown to present only in 20% of these patients. Finally, as renal involvement may develop up to years after initial diagnosis, follow-up is crucial to monitor renal function.[4]

Cause is unknown

The cause of HSP is unknown, although it is thought to be secondary to deposition of immune complexes, and has been associated with vaccinations, viral infections, allergens in foods, drug reactions, exposure to cold, and bacterial respiratory infections, particularly involving group A streptococci.[1,2] This patient had been diagnosed with streptococcal pharyngitis and had been given a course of clindamycin due to her numerous drug

allergies. Although the precise cause of her HSP is not definite, drugs have been shown to cause approximately 10% of acute cutaneous vasculitis cases, and she had never before been given clindamycin, possibly pointing to the origin of her disease.[5]

Differential diagnoses

Differential diagnoses for HSP depend on the level of specificity with which the triad presents. When symptoms are not typical, abdominal cramping alone may be confused with acute abdomen. Rash may be predominantly in the form of target lesions, and can be mistaken for erythema multiforme, particularly after a suspected drug reaction. Rheumatoid arthritis or systemic lupus erythematosus may be suspected with arthralgias. Idiopathic thrombocytopenic purpura can be distinguished from HSP by platelet count. Trauma or meningococcal septicemia may also be mistaken for the correct diagnosis in the presence of an atypical rash with few accompanying symptoms.

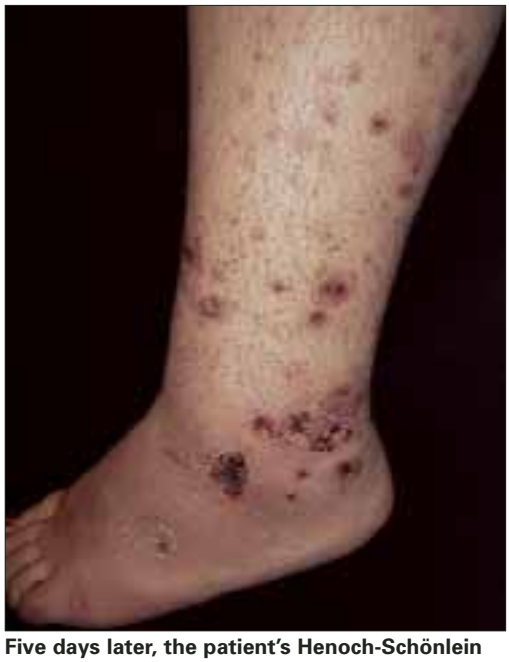
Treatment: Steroids, NSAIDs, and careful monitoring of renal function

Corticosteroids may be administered for severe abdominal symptoms, but they have not been shown to be useful in the absence of such symptoms. Conservative management with NSAIDs is the treatment of choice, and careful monitoring of renal function, even in the absence of renal involvement.[1,3,5]

Outcome and discussion

Due to the presence of the classic HSP triad in our patient, we deemed a biopsy necessary, and managed the patient with ibuprofen. One week later, her rash had receded and her microscopic hematuria was gone, but the vasculitis had led to lower-extremity edema. The patient's feet were painfully swollen, and where the patient had scratched a lesion, her foot exhibited honey crusting and warmth, indicating a probable infection (**FIGURES 4 AND 5**). Her feet and ankles were so swollen and painful that she had difficulty walking. She was given cephalexin 500 mg 4 times daily for her infection, and was also restarted on oral prednisone at 60 mg daily until she could see the rheumatologist 2 days later. She was also issued crutches.

FIGURE 6 The same patient after 5 days



Five days later, the patient's Henoch-Schönlein purpura is resolving.

The rheumatologist agreed that this was HSP and told her that she would need to continue the prednisone for 2 months due to the severity of her cutaneous vasculitis. Within 5 days, the patient's rash had diminished significantly. She was able to walk with less pain, as her ankle swelling decreased (**FIGURE 6**). ■

FAST TRACK

Conservative management with NSAIDs and careful monitoring of renal fucntion is the treatment of choice

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