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MEETING ABSTRACT Open Access

Vasculitis masquerading as drug allergy: thinking outside the 'adult' box of possible diagnoses

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Case report

A 32 year-old male presented with fever and pharyngitis. Amoxicillin was prescribed and 5 days into therapy he developed a petechial rash on the lower extremities, arthritis of the ankles, wrists and elbows, and loose stools. He completed the amoxicillin with no worsening of symptoms. A vasculitis assessment in the Internal Medicine Clinic found a slightly elevated ANA and normal ANCAs, hepatitis B/C/HIV serologies, CH50, C3, C4, rheumatoid factor, CBC, electrolytes, coagulation, urinalysis and chest x-ray. Skin biopsy confirmed a neutrophilic small-vessel leukocytoclastic vasculitis (Figure 1). The skin rash and arthritis resolved over the next 4-6 weeks with residual hyperpigmentation and scarring. The symptoms were attributed to a possible drug allergy to amoxicillin and avoidance was recommended.

Two months later, fever and pharyngitis recurred and a similar reaction occurred within 48 hours of azithromycin treatment (Figure 2). A referral was made the Adverse Drug Reaction clinic. IgE-mediated symptoms were absent. Previous treatments with penicillin were tolerated.

Conclusions

Skin exanthems have a broad differential diagnosis. Henoch-Schonlein-Purpura (HSP) is a small vessel vasculitis with purpura, arthritis, and gastrointestinal symptoms with 90% of cases occurring in children. A dermatology

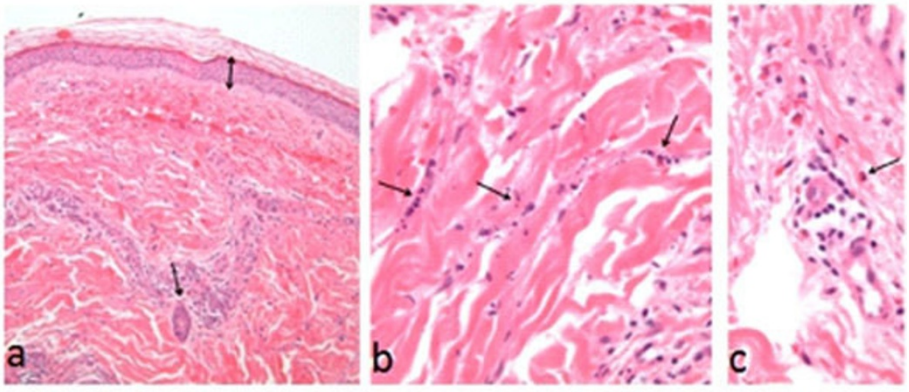

Figure 1 Histological images of neutrophilic small-vessel leukocytoclastic vasculitis (skin punch biopsy from patient's leg). a. Normal epidermis. On dermis, extravasated red cells and mild perivascular inflammation. **b,c.** Inflammatory cells (High power): neutrophils and nuclear dust (b), rare eosinophils (c).

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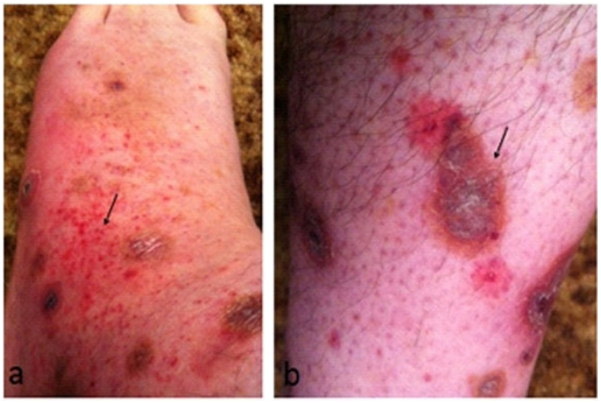

Figure 2 Images of rash during the second episode of fever and pharyngitis. a. Petechial rash on the lower extremeties. b. Residual hyperpigmentation and scarring.

referral was made and the current working diagnosis is HSP or polyarteritis nodosum (PAN) pending a repeat biopsy during the next acute flare. Skin exanthems are often attributed to concurrent medications. The clinical history in a drug allergy assessment is key in distinguishing hypersensitivity drug reactions from other causes including vasculitis. Drug allergy assessment can prevent unnecessary future antimicrobial avoidance in patients with skin exanthems.

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