Acute Exanthematous Pustular Dermatitis after Pneumococcal Vaccine

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We have recently observed an acute exanthematous pustular dermatitis after pneumococcal vaccine in a patient awaiting splenectomy. Splenectomy was proposed to a 28-year-old woman with acquired angioedema and generalized lymphadenopathy present for 3 years and a recent hepatosplenomegaly and pancytopenia (hemoglobin 8.3 g/dl, white blood cell count $2.1 \times 10^9/\text{Vl}$ and platelets $103 \times 10^9/\text{l}$). After several studies, including repeated immunologic evaluation, computed tomography scans, bone marrow and lymph node biopsies, a definite diagnosis could not be made. A chronic hepatic disease with a positive immunocytochemistry for hepatitis B virus was found on liver biopsy. Splenectomy was proposed because of the pancytopenia as well as to rule out abdominal malignancy. Three weeks before surgery she began clindamycin and nystatin to treat an oral mucosulceration, and, 1 week later, she was given polyvalent pneumococcal vaccine (Pneumo 23; Institut Mérieux, Lyon, France). On the day after the vaccine, she developed fever (39.6 °C) and an erythematous rash over the trunk and proximal limbs, with 0.5-to 2-mm papules that evolved to pustules 24 h later. Swabs from the pustules were sterile. Skin biopsy showed subcorneal neutrophilic pustules, a slight spongiosis and exocytosis and a diffuse perivascular polymorphic dermal infiltrate. Fungal examination was nega-

tive. Treatment included prednisolone (initial dose 50 mg/day, with a sequential decreased dose), hydroxyzine and emollients for 10 days, with a marked improvement. Both clindamycin and nystatin were continued till 1 week after the eruption had disappeared. The spleen histology showed a congestive pattern with multiple infarct areas. No evidence of lymphoma was found at lapa-rotomy or in the various histologic specimens (hepatic, splenic and abdominal ganglia). Acute exanthematous pustular dermatitis usually occurs following drug ingestion [1-3] or in relation to a viral infection [2, 4]. Pneumococcal vaccine is recommended for patients awaiting splenectomy, and its safety has been recognized [5]. It contains purified capsular polysaccharide antigens of 23 types of *Streptococcus pneumoniae* [6]. Nearly half of the recipients of pneumococcal vaccine develop mild local side effects such as erythema and swelling; anaphylactoid reactions have been reported at a rate of 5 per million doses administered [6].

Fever, myalgia and severe local reactions occurred in 1% of patients [7]. However, to our knowledge, acute exanthematous pustular eruption has not been previously described. Our patient had neither personal and familial history of psoriasis nor clinical and histologic features of either pustular psoriasis or subcorneal pustular dermatosis. Although the unknown underlying condition could predispose to this adverse reaction, the temporal relationship between vaccine administration and the onset of the eruption as well as its rapid resolution (while taking clindamycin and nystatin) suggest that the vaccine was the precipitating factor.

References

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