Chronic Meningococcemia

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Key Words
Chronic meningococcemia
Neisseria meningitidis
Vasculitis
Fever

Abstract
A case is reported of a 70-year-old woman with chronic meningococcemia. She had intermittent fever, purpuric papules disseminated on the trunk and limbs, headache, arthralgia and myalgia for 5 weeks. Treatment with ceftriaxone was rapidly successful.

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Chronic meningococcemia is defined [1] as a meningococcal septicemia of more than 1 week’s duration without meningeal symptoms. Its clinical manifestations are recurrent fever accompanied by a skin rash (usually maculopapular or petechial), arthralgia, headache and minimal debility.

It is a rarely reported disease whose frequency is probably underestimated due to the great sensitivity of meningococci to different antibiotics often prescribed without precise diagnosis.

We report a case of chronic meningococcemia diagnosed 5 weeks after onset.

Case Report
At the end of April 1989, a 70-year-old woman had tonsillitis, for which she received no treatment. In May 6, she developed severe muscular and joint pain of the lower limbs accompanied by fever and multiple nonconfluent papules with a purpuric center disseminated on the trunk and limbs (fig. 1). She was treated by aspirin and paracetamol, and the symptoms subsided in about 2 days. General examination was normal. The biopsy of a skin lesion showed a leukocytoclastic vasculitis (fig. 2). Bacteria were not detected on Gram-stained sections. Bacteriological examination of a biopsy fragment was negative. Immuno-fluorescence revealed immunoglobulin M and complement deposits in the vessel walls of the superficial dermis. Erythrocyte sedimentation rate was 75 mm/h, platelet count was 654,000/mm3, C3 antigen level was 1.29 g/l (normal 0.5–0.9 g/l), C4 antigen level was 0.4 g/l (normal 0.1–0.4 g/l). Alkaline phosphatase showed a twofold increase and γ-glutamyltransferase a threefold increase.

Antinuclear antibodies were positive with a titer of 1/2,560 and a homogeneous aspect. Chest X-ray showed calcifying pachypleu-ritis. Abdominal echography revealed cholelithiasis. All the other laboratory tests were negative including two pairs of blood cultures at a time when the fever had already subsided.

Between May 18 and May 31, the patient presented four new episodes similar to the first one. Blood culture done during a febrile peak detected Neisseria meningitidis group B. Throat swabs were negative for meningococci. There was no deficiency in the late complement components (C5-C9). Treatment consisted of ceftriaxone, 2 g/day i.v. for 10 days, and produced recovery within 24 h.
Fig. 1. Papules with a purpuric center disseminated on the trunk and limbs.
Fig. 2. Histology from a lesion of the thigh: perivascular infiltrate of the superficial and middermis consisting mainly of neutrophils with leukocytoclasis; invasion and necrosis of the vessel walls as well as intravascular thrombi. HE. ×4().

Discussion
Chronic meningococcemia was well reviewed by Benoit [1]. Our patient had typical features of this disease. More recently, inherited late complement deficiencies were reported to occur in association with chronic meningococcemia [2, 3]. Such a deficiency was not found in our case. Our observation stresses the usefulness of repeated blood cultures in the investigation of any recurrent vasculitis associated with fever and joint pain.

References

Delayed Skin Reaction Caused by a Coelenterate
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Key Words. Marine animals · Coelenterates · Delayed skin reaction

Abstract. We report a delayed skin reaction, histologically characterized by liquefaction degeneration of the basal layer, which was observed in a 30-year-old man returning from Guadeloupe. It was most likely due to contact with a marine animal.

Immediate sting reactions are the most frequently observed skin damage caused by marine animals [1]. Delayed, persistent reactions are less well known [2]. We report a case which belongs to this latter group.

Case Report
A 30-year-old healthy man was superficially ‘injured’ while swimming in the coastal sea of Guadeloupe. He observed a superficial scratch on the right wrist and thigh. The next day the
superficial erosion began to swell, vesicles and crusts began to appear. During the next few days a linear extension of the lesion of the right wrist going all along the forearm to the elbow was seen. Other lesions appeared on the dorsal aspect of the left index and medius. They caused moderate burning itch.

A week after injury, physical examination revealed the presence of crusty, erythematous, violaceous skin lesions in all the affected areas (fig. 1). The regional lymph nodes were not enlarged. White and red blood cell counts, and sedimentation rate were normal. Microbiological examination of a skin scraping was negative. A biopsy was taken from the lesion of the right thigh. Histologically the epidermis was partially parakeratotic; there was pronounced vacuolization of the cytoplasm of basal keratinocytes leading to liquefaction degeneration of the basal layer (fig. 2). Isolated necrotic keratinocytes were also seen in the suprabasal layers of the epidermis. The upper dermis showed a mild, perivascular. lymphohistiocytic infiltrate with some melanophages. New skin lesions appeared during the first 2 weeks following injury; then they gradually regressed. 4 months later the patient had still some residual hyperpigmentation. Topical corticosteroids gave some symptomatic relief.

Comment

The skin lesions of this patient are most likely related to a contact with a marine animal of the phylum Coelenterata probably with a ‘fire coral’ or a ‘Portuguese man-of-war’. The coelenterates are characterized by toxin-releasing organelles, nematocysts which are located on the tentacles. There are three classes of coelenterates. The hydrozoa have a gas-filled bag long tentacles and are propelled by wind and waves. The two hydrozoa most frequently causing skin lesions are the ‘Portuguese man-of-war’ and the ‘fire coral’. The scyphozoa have a hood capable of rhythmic contractions which can propel the animal.

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