Value of a novel Neisseria meningitidis--specific polymerase chain reaction assay in skin biopsy specimens as a diagnostic tool in chronic meningococcemia

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Abstract

BACKGROUND: Chronic meningococcemia (CM) is a diagnostic challenge. Skin lesions are frequent but in most cases nonspecific. Polymerase chain reaction (PCR)-based diagnosis has been validated in blood and cerebrospinal fluid for acute Neisseria meningitidis infection, in patients in whom routine microbiologic tests have failed to isolate the bacteria. In 2 patients with CM, we established the diagnosis by a newly developed PCR-based approach performed on skin biopsy specimens. OBSERVATIONS: Two patients presented with fever together with systemic and cutaneous manifestations suggestive of CM. Although findings from blood cultures remained negative, we were able to identify N meningitidis in the skin lesions by a newly developed PCR assay. In 1 patient, an N meningitidis strain of the same serogroup was also isolated from a throat swab specimen. Both patients rapidly improved after appropriate antibiotic therapy. CONCLUSIONS: To our knowledge, we report the first cases of CM diagnosed by PCR testing on skin biopsy specimens. It is noteworthy that, although N meningitidis-specific PCR is highly sensitive in blood and [...]
Correction

Error in Author Contributions. In the Observation by Parmentier et al titled “Value of a Novel Neisseria meningitidis-Specific Polymerase Chain Reaction Assay in Skin Biopsy Specimens as a Diagnostic Tool in Chronic Meningococcemia,” published in the June issue of the Archives (2008;144[6]:770-773), the Author Contributions paragraph should have included the sentence, “Drs Parmentier and Garzoni equally contributed to the work.”