

Diagnosis of Rocky Mountain Spotted Fever And Its Treatment

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COMMENTARY

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ABOUT THE STUDY

Rocky Mountain Spotted Fever (RMSF), a bacterial illness. It usually starts with a fever and headache, followed by the appearance of a rash, a few days later. The rash usually starts on the wrists and ankles and consists of tiny bleeding patches. Muscle discomfort and vomiting are two more possible symptoms. Hearing loss or the loss of a portion of an arm or leg are possible long-term consequences after recovery.

Rickettsia rickettsii is a kind of bacteria that is delivered to people mostly by American dog ticks, Rocky Mountain wood ticks, and brown dog ticks. Blood transfusions are seldom used to transmit the illness. It's tough to make a diagnosis in the early stages. Although a variety of laboratory tests can confirm the diagnosis, therapy should begin based on the symptoms. *Rickettsia parkeri* rickettsiosis, Pacific Coast tick fever, and rickettsia pox are all part of the spotted fever rickettsiosis group.

The drug doxycycline is used to treat RMSF. It is advised for all age groups, as well as during pregnancy, and works best when used early. Antibiotics are not advised as a preventative measure. Approximately 0.5 percent of those infected die as a result of their infection. More than 10% of patients with RMSF perished before the discovery of tetracycline in the 1940s.

In the United States, less than 5,000 incidents are reported each year, with the peak months being June and July. It has been found all throughout the United States, Western Canada, and parts of Central and South America. Rocky Mountain spotted fever was originally discovered in the Rocky Mountains in the 1800s.

Diagnosis

A doctor can identify this condition both with and without lab tests. Because therapy may be required before the findings are back, lab testing is not always dependable. Low platelet count, low blood salt concentration, and high liver enzyme levels are all common abnormal test results in individuals with Rocky Mountain spotted fever. The most reliable means of diagnosis are serology testing and skin biopsy. Despite the fact that immunofluorescent antibody assays are among the strongest serology tests available, most antibodies that combat *R. rickettsii* are undetectable on serology testing within the first seven days after infection. Dengue, leptospirosis, chikungunya, and Zika fever are all possible differential diagnoses.

Treatment

When Rocky Mountain spotted fever is suspected, appropriate antibiotic therapy should be begun very early. Treatment should not be postponed for the results of a laboratory test, as early treatment of Rocky Mountain spotted fever is linked to a decreased fatality rate. The absence of a tetracycline response rules out a diagnosis of Rocky Mountain spotted fever. Severely unwell persons may need more time to recover from their fever, especially if they have had several organ systems damaged. In healthy patients who have recently been bitten by a tick, preventive medication is not indicated because it may just postpone the beginning of illness.

The drug choice for patients with Rocky Mountain spotted fever is doxycycline (a tetracycline), which is one of the few situations doxycycline is used in children. Treatment usually consists of 100 milligrams every 12 hours, or 4 mg/kg of body weight per day in two split doses for children under 45 kg (99 lb). After the fever has subsided and there is clear evidence of clinical improvement, treatment should be continued for at least three days. This will usually be for a period of five to 10 days. Severe or complex outbreaks may necessitate a longer duration of therapy. Chloramphenicol is a prescription-only antibiotic that can be used to treat Rocky Mountain spotted fever in pregnant women.