**Rickettsia parkeri Rickettsiosis**

**Agent:** *Rickettsia parkeri*

*R. parkeri* is closely related to *R. rickettsii*, the causative agent of Rocky Mountain spotted fever (RMSF). *R. parkeri* rickettsiosis and RMSF have similar signs and symptoms, including fever, headache, and rash, but also typically include the appearance of an inoculation eschar (seen at right) at the site of tick attachment. Eschar is not common in cases of RMSF.

**Where Found**

*R. parkeri* rickettsiosis is transmitted by Gulf Coast ticks in the southeastern and mid-Atlantic states, as well as parts of southern Arizona.

**Incubation Period**

2–10 days

**Signs and Symptoms**

*R. parkeri* rickettsiosis is characteristically less severe than RMSF and almost always associated with an inoculation eschar (ulcerated, necrotic lesion) at the site of tick attachment.

Several days after an eschar appears, the following can develop:

- Fever
- Headache
- Rash (sparse maculopapular or papulovesicular eruptions on the trunk and extremities)
- Muscle aches

**Note:** *R. parkeri* rickettsiosis can be difficult to distinguish from RMSF and other spotted fevers, especially during early stages of these diseases. Eschars are uncommonly identified in persons with RMSF.

**General Laboratory Findings**

- Mildly elevated hepatic transaminases
- Mild leukopenia
- Mild thrombocytopenia, less common
LABORATORY DIAGNOSIS

- Detection of rickettsial DNA by PCR in eschar swab, whole blood, or skin biopsy.
- Demonstration of a four-fold change (typically rise) in IgG-specific antibody titer by indirect immunofluorescence antibody (IFA) assay in paired serum samples. The first sample should be taken within the first week of illness and the second should be taken 2 to 4 weeks later.

**NOTE:** Species-level testing for *R. parkeri* is not commercially available. RMSF antibody tests are available commercially and often cross-react.

**NOTE:** IgM antibodies are less specific than IgG antibodies and are more likely to generate false positives. IgM results alone should not be used for laboratory diagnosis.

**NOTE:** Acute antibody results cannot independently be relied upon for confirmation.

TREATMENT

See Rocky Mountain spotted fever treatment on page 34.

REFERENCES


