

Original article

Efficiency of clinical and laboratory diagnostic methods for leptospirosis

Sophie D Johanna, Anna S. benedikt

ABSTRACT

Background: Leptospirosis is a zoonotic infectious disease caused by spirochetes of the genus *Leptospira*. Prompt and accurate diagnosis is crucial for effective management and prevention of complications. This original article evaluates the efficiency of clinical and laboratory diagnostic methods for leptospirosis, aiming to identify the most reliable and practical approaches.

Methods: A comprehensive study was conducted, including a retrospective analysis of clinical data and laboratory results of confirmed leptospirosis cases. Various diagnostic methods, such as serological tests (MAT, ELISA), polymerase chain reaction (PCR), and clinical indicators (symptoms, signs), were assessed for their sensitivity, specificity, positive predictive value (PPV), and negative predictive value (NPV).

Results: The results of this original article demonstrated the efficiency of different diagnostic methods for leptospirosis. Serological tests, particularly the microscopic agglutination test (MAT), showed high sensitivity and specificity in detecting *Leptospira* antibodies. PCR analysis proved valuable in early diagnosis, with high sensitivity and rapid turnaround time. Clinical indicators, such as fever, myalgia, and jaundice, showed variable diagnostic value, with lower specificity but higher sensitivity.

Conclusion: This original article provides valuable insights into the efficiency of clinical and laboratory diagnostic methods for leptospirosis. A combination of serological tests, PCR analysis, and clinical indicators can increase the accuracy and timeliness of diagnosis. The choice of diagnostic method should be tailored to the clinical presentation, availability of resources, and local epidemiology. Further research is needed to explore novel diagnostic approaches and improve the overall efficiency of leptospirosis diagnosis.

Keywords: leptospirosis, diagnostic methods, serological tests, polymerase chain reaction, clinical indicators, efficiency.

Non-Open access article

To get the full text of this paper, please contact the editorial board or the support team at: editor@clinician.site, support@clinician.site