

Clinical differentiation of acute pyelonephritis from lower urinary tract infection in children.

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摘要

Abstract

BACKGROUND AND PURPOSE: To evaluate clinical variables for diagnosing childhood acute pyelonephritis (APN) when technetium-99m dimercaptosuccinic acid (DMSA) scintigraphy is not available. **METHODS:** We retrospectively reviewed the records of 590 children with febrile UTI seen from January 1999 to February 2004. On the basis of DMSA scintigraphy performed within 7 days after admission, they were divided into APN (n = 237) or non-APN (n = 353) groups. Gender, age, clinical presentation, absolute neutrophil count, C-reactive protein (CRP), urinalysis, culture, and sonographic findings were recorded from charts. **RESULTS:** A CRP level of $>$ or $=66.4$ mg/L, in patients with >2 days prior to admission had a sensitivity of 71.6% and a specificity of 72.5% for APN. Similarly, a CRP of >27.3 mg/L in patients with $<$ or $=2$ days prior to admission and a white cell count of $>14,990/\text{mm}^3$ had sensitivities of 68.6% and 62.0% and specificities of 66.1% and 63.0%, respectively. Combining two or more variables did not result in better discrimination. **CONCLUSIONS:** If a DMSA scan is not available, it is reasonable to treat a febrile UTI as APN if the CRP is >66.4 mg/L in a patient with >2 days of fever or if the CRP is >27.3 mg/L in a patient febrile for $<$ or $=2$ days.